proven success and the patented invention, such that the objective evidence should be considered in the determination of nonobviousness.

DeMaco Corp., 851 F.2d 1392. Most recently, the Federal Circuit has further explained the nexus requirement as:

When a patentee can demonstrate commercial success, usually shown by significant sales in a relative market, and that the successful product is the invention disclosed and claimed in the patent, it is presumed that the commercial success is due to the patented invention.

JT Eaton & Co. v Atlantic Paste and Glue Co., 106 F.3d 1563, 1571 (Fed. Cir. 1997), citing DeMaco Corp., 851 F. 2d 1387, 1392-93.

The present invention relates to a multi-layered golf ball comprising covers that have a hard inner layer and a relatively soft outer layer. The improved multi-layer golf balls provide enhanced distance and durability properties, while at the same time offering the "feel" and spin characteristics associated with soft balata and balata-like covers known in the art.

The pending claims recite, in part, a golf ball comprising (i) a core, (ii) an inner cover layer molded on the core, and (iii) an outer cover layer molded on the inner cover layer. The pending claims also recite specific materials or characteristics for each of the layers. The pending claims further recite that the outer cover layer is relatively soft. It will be appreciated that although this feature may be recited differently in various claims, it is present in all pending claims.

The commercial embodiment of the claimed invention is the Top-Flite® Strata™ golf ball. Spalding, Top-Flite's parent company, has experienced incredible success in terms of sales, praise within the industry, and wide-spread adoption throughout the golf industry and related fields of its Strata™ balls. Since the Strata™ ball's introduction in mid-1996, a flurry of complimentary reviews have issued. For example, turning attention to the attached copies of articles and reports from nationally renowned business and trade journals and newspapers across the country, the outstanding success of the Strata™ ball is clearly evident. In addition, the nexus between this success and the claimed multi-layer and soft outer layer

features of the Strata™ ball is apparent.

One of the first reports regarding the introduction of Top-Flite's new multi-layered golf ball, was on May 2, 1996 in *USA Today*. See Exhibit 1. There, it is noted that the multi-layer ball comprises a super-soft cover and a firm inner layer.

GolfWeek reported on May 18, 1996 that the Strata™ ball was analogous to a golf ball with a "two-speed transmission." This was explained as, "[t]he idea here is to produce optimum distance and feel-the best of both worlds-and still adhere to the distance and velocity limits of the U.S. Golf Association." See Exhibit 2.

The Kankakee Journal reported the introduction of the Top-Flite® multilayered golf ball on May 21, 1996. See Exhibit 3.

On June 4, 1996, *Union-News* reported a multimillion dollar three-year expansion project to increase golf ball production by Spalding.

Plans for expansion are being accelerated by the company because of the overwhelming success of a revolutionary new ball that Spalding introduced two weeks ago to the public... The demand for the ball is so great that Spalding is limiting quantities it ships to customers. Customers are limited to receiving six dozen balls per month.

See Exhibit 4.

The Schenectady Gazette reported on June 5, 1996 the multi-layer Strata™ as a "breakthrough technology" and which will create "extraordinary demand." See Exhibit 5.

Similarly, the *Albany Times Union*, on June 7, 1996, reported the expansion plans and that the expanded facilities will manufacture the new Top-Flite® Strata™ golf ball. See Exhibit 6.

That same day, *GolfWorld* reported the debut of Top-Flite's Strata™ Tour. See Exhibit 7.

The following day, on June 8, 1996, *GolfWeek* reported that Spalding would officially unveil the Strata[™] ball on June 11. See Exhibit 8. "The new ball, called the Strata[™], has a soft outer cover for spin and control, and a hard inner layer to promote distance."

USA Today further reported, on June 10, 1996, the introduction of Top-Flite's multilayer golf ball, the Strata™. See Exhibit 9.

The Detroit News took note of this on June 11, 1996 and also noted the introduction of Top-Flite's Strata™ Tour ball. See Exhibit 10.

Similarly, *The Wilkes Barre (PA) Citizens' Voice* reported on June 12, 1996, the introduction of Spalding's Strata™ Tour ball. See Exhibit 11.

That same day, the *Avalanche-Journal* reported the introduction of Spalding's Strata™ Tour ball. In addition, it was noted that professional golfer Mark O'Meara had been using the ball for several weeks. "In that time, O'Meara has won the Greater Greensboro and Memorial tournaments, finishing second at the MCI Heritage and Kemper Open. O'Meara is \$678,600 richer and 51-under-par since he began playing the ball." See Exhibit 12.

That same day, the *Daily SouthTown* reported the ball launch by Spalding of its new Top-Flite® Strata™ Tour. See Exhibit 13.

On June 14, 1996, the *Los Angeles Times* reported the new multilayer Top-Flite® Strata™ Tour ball. See Exhibit 14.

On June 20, 1996, the *Boston Globe* noted that the range at the US Open for that year was stocked daily with 100 dozen Top-Flite® Strata™ balls. See Exhibit 15.

On June 20, 1996, the *Atlanta Business Chronicle* reported the "new generation" of golf balls available from Spalding under the Top-Flite® Strata™ designation. See Exhibit 16.

On June 23, 1996, the *Citrus County Chronicle* reported the release of Spalding's Top-Flite® Strata™ ball. See Exhibit 17.

That same day, the *Macomb Daily* in Mt. Clemens, Michigan, also reported that 100 dozen Top-Flite® Strata™ balls were stocked daily for the US Open. See Exhibit 18.

The *Post-Dispatch*, on June 27, 1996, reported Spalding's new multilayer Top-Flite® Strata™ Tour ball. See Exhibit 19.

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The *Business Review*, June 30, 1996, printed the headline "Emerging technology for multi-layer golf balls drives expansion of Gloversville Spalding plant". See Exhibit 20.

The *Mercury* in Pottstown, Pennsylvania, reported on July 3, 1996, that D.A. Weibring won the Greater Hartford Open using Top-Flite's new multilayer Strata™ Tour golf ball. "The Top-Flite® people really took time with me last fall and we tested about six different balls. It was a very unique feel and softer feel without question," Weibring said about the three-layer Strata™. See Exhibit 21.

The *Times Herald* of Norristown, Pennsylvania, of July 5, 1996, reported Weibring's win in Hartford. See Exhibit 22.

The Register Citizen of Torrington, Connecticut, on July 21, 1996, reported "New clubs, ball add distance, control". Specifically, it was reported that:

'People really into the game are always in search of the ultimate,' Torrington Country Club pro Tom Lavinio said. 'And they're buying it. You can hit the ball further with it.'

As for the ball, Spalding's latest is constructed differently and can be made to behave a lot like a balata ball, allowing the use of backspin, among other things.

'It has a better cover,' Lavinio said.
'It's softer and players are looking for a soft cover because it gives them more control.
The hard cover balls just don't do what you want them to some times.'

Spalding's new ball has two covers, an inner hard one and a softer outer one, unlike a regular ball which has a core and a molded cover on it. When you hit the ball hard, the outer cover compresses, allowing the ball to be hit further.

See Exhibit 23.

BusinessWeek reported, on July 29, 1996, in an article entitled, "The Belle of the Golf Balls", that "the Strata's patented three-layer construction has won raves from serious golfers because, they say, it has dual qualities that are seldom found in a single ball: It both handles well on the green, and most important, it soars far on the fairway." See Exhibit 24.

The Top-Flite® Strata™ Tour ball was previewed in the July/August 1996 Golf Product News. See Exhibit 25.

The August 1996 edition of *Golf Magazine* reported the introduction of the new Top-Flite® Strata™ ball. See Exhibit 26.

The August 1996 edition of *Golf Digest* reported recent winnings by golf pros using Top-Flite's Strata™ Tour golf ball. The article attributed the success of that ball, among several others, as stemming from the use of multiple layers:

Top-Flite's three-piece Strata Tour is similar to a two-piece ball (core and cover) but differs in that it, too, includes an inner cover, or mantle. Top-Flite calls this process "multi-layering,"... The Strata Tour was designed specifically for low-handicap players and for high performance from 50 yards and in.

See Exhibit 27.

The Wall Street Journal reported on August 16, 1996, the ever-increasing price of golf balls. Although somewhat "biting" of the golf industry in general, the Journal did admit:

[I]t's [Spalding's Top-Flight Strata is] so hot its entire production is sold out through September; dozens of touring pros are begging for samples; golfers are breaking into other golfers' lockers and stealing them, and offering \$300 a dozen, under the table, for them. (Actually, Pro Golf Discount in Bangor, Maine, among other retailers has already slashed its price to \$40 a dozen.)

See Exhibit 28.

The Los Angeles Times reported on September 30, 1996, that Spalding's Top-Flite® Strata™ blends distance and control characteristics in one ball. See Exhibit 29.

On February 12, 1997, *USA Today* reported additional wins by professional golfer Mark O'Meara in addition to adoption of the Top-Flite® Strata™ ball by other professional golfers:

Mark O'Meara has become a good

salesman for Top-Flite, even though the only thing showy about him is the scores he's shooting on the PGA Tour.

Eight months ago he was the only Tour player using the Strata Tour ball. Now there are about 35. Total sales of the ball are nearly \$20 million.

O'Meara said he was "a guinea pig" when Top-Flite came to him last spring with the idea of playing their new three-piece golf ball that was supposed to combine the best properties of a solid ball and a wound ball.

In the last 13 months O'Meara has earned \$1.9 million on Tour.

He has won back-to-back events - the Pebble Beach (Calif.) National Pro-Am and Buick Invitational - and leads the PGA Tour in earnings with \$710,460 in four events.

O'Meara's success since switching puts him in an unusual position.

See Exhibit 30.

Similarly, *Golf World* reported the success of O'Meara since using the Top-Flite® Strata™ ball. See Exhibit 31.

In an article entitled, "Full Metal Jacket, Golf ball performance reaches new levels with the advent of metal construction and multiple layers", published in July of 1998 in *Golf Tips*, the Top-Flite® Strata™ Tour was again praised. On page 71 of the article, it was noted, "Top-Flite® Strata™ Tour the first multilayer ball to gain significant acceptance on the PGA Tour." And on page 73 this success was described as follows.

A testament to the Strata's performance characteristics is the unprecedented Tour acceptance it has achieved for a non-wound golf ball. A notable example of a Tour player using the Strata is Mark O'Meara, who played it in his





win at the Masters earlier this year.

See Exhibit 32.

Top-Flite's website includes additional information as to the industrywide acceptance of the Strata™ Tour:

Dozens of professionals worldwide have already switched to the new Top-Flite Strata Tour, including former wound ball players Mark O'Meara and Jay Don Blake. And the results have been impressive. Since switching to Strata Tour, O'Meara has reached the top 5 on the PGA Tour in money, in scoring, in greens in regulation and in birdies. Strata Tour has also recorded numerous Tour victories in its first year such as: O'Meara's win at Greensboro, D.A. Weibring's GHO victory, Walt Morgan's first place honors at the SPGA Ameritech, not to mention several international wins.

These accomplishments and the multilayer construction of the Strata™

Tour are explained in greater detail in the accompanying pages of the website. See Exhibit 33.

Most recently, PGA golfer Mark O'Meara won the 1998 Masters® and the 1998 British Open using the Top-Flite® Strata™ ball. See Exhibit 34.

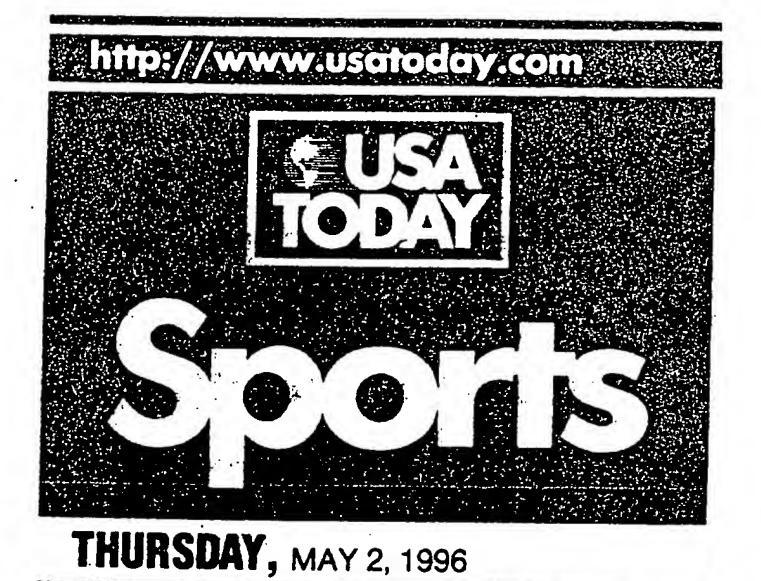
The foregoing information clearly evidences the incredible success of the Strata™ Tour ball, that is, the commercial embodiment of the presently claimed invention. Applicants submit that the pending claims recite patentable subject matter.

Respectfully submitted,

FAY, SHARPE, BEALL, FAGAN, MINNICH & McKEE

Richard M. Klein Reg. No. 33,000 1100 Superior Avenue, 7th Floor Cleveland, OH 44114-2518 (216) 861-5582

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Top-Flite will sell multilayer golf ball

By Don Cronin USA TODAY

Golfers no longer must choose only between wound or two-piece golf balls.

Top-Flite soon will market a multilayer ball it says combines the best of both.

"When I'm pitching or putting, the ball reacts very softly, like a wound ball," says Mark O'Meara, who used the ball finishing second April 21 at Hilton Head Island, S.C., and winning Sunday at Greensboro, N.C., to earn \$475,200 the last two weeks on the PGA Tour.

"When I hit it off the tee, it feels harder. When it hits the ground, it rolls farther."

Spalding, Top-Flite's parent company, patented multilayer golf ball construction in 1984.

"But not until the last cou-

ple of years were we able to put it all together," said Mike Sullivan, Top-Flite's senior director of research.

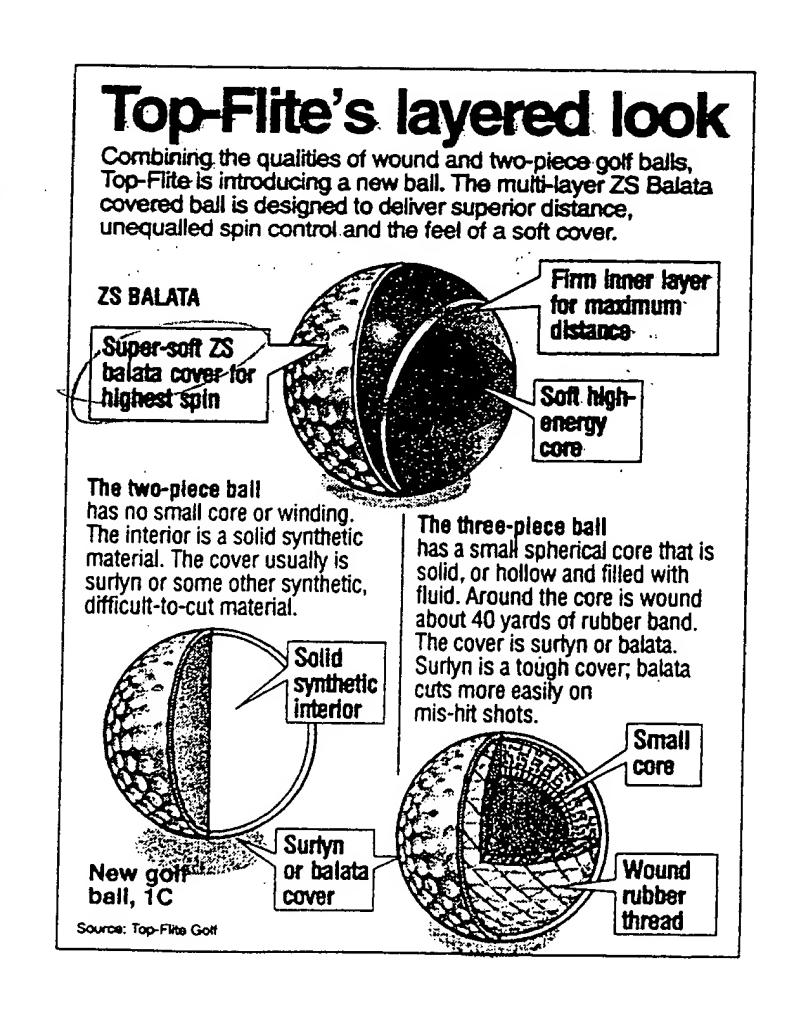
"This ball does things neither a wound nor a two-piece ball can do. It has the feel of a wound ball — high spin on short shots with lofted irons — but the distance of a two-piece ball off the tee.

"We call it a 'spin on demand' product."

This model, at \$35 a dozen, is designed for pros and low-handicap amateurs, but models for higher handicap players will follow.

"We can use multilayer construction to customize balls for players of all skill levels," said Scott Creelman, senior vice president of golf products.

▶ Bail comparisons, 14C



EXQ

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GOLFWEEK

May 18, 1996

PERSPECTIVE

Balls with 2-speed transmission too smart

had a dream the other night. I was playing in the U.S. Open and — are you ready for this? — I was talking to my golf ball.

"Launch angle, 31 degrees," I was saying as I stood on the tee. "Backspin, minimal. Sidespin, none. Initial velocity, 255 feet per second. Total distance, 296 yards."

Kaboom! My bail exploded off the clubface, accelerated powerfully through its takeoff and landed flawlessly in the fairway.

"It's that new ball from Nike called the Talking Brain." Johnny Miller was explaining to a worldwide television audience. "Nike has been remarkably aggressive since acquiring Spalding and its Top-Flite line. This new ball does whatever you tell it to do — within the rules, of course. It's kind of expensive, though. A dozen costs \$2,400 at Montana Bob's."

I woke up before I won the U.S. Open, but it was inevitable.

What's up with golf balls, anyway? All of a sudden, we are hearing about four-piece balls and double-cover balls (Bridgestone) and multilayer balls (Top-Flite). Players like Nick Faldo and Mark O'Meara are using them to win tournaments, but they aren't yet available to you and me. Top-Flite hasn't even announced a name for its ball.

At least Titleist was ready with a large supply of the two-piece HP2 Tour once the new ball started making headlines earlier this year. Consumers didn't have to wait.

But let's give Bridgestone and Spalding a break. They didn't expect us to beat down their doors, demanding to play a ball before its scheduled release. But we, the golfers of America, seem to be ravenous for anything new.

Earlier this month I had a luncheon meeting with Hank Rojas, president of Bridgestone. I

asked him what I thought were the obvious questions. "How in the world can a ball have two covers? When can we purchase the ball that Faldo used to win the Masters?"

The answer to the second

JAMES ACHENBACH

question is clear: before the end of the year. Bridgestone appears to have blown this one, because the curiosity and demand are here, thanks to Faldo, but the ball isn't. It is sold only in Japan.

When it comes to golf balls in Japan. Bridgestone and Dunlop are the Big 2— the Titleist and Top-Flite of Japanese golf, if you will. Bridgestone, with 6 percent of the U.S. golf ball market, controls about 40 percent of Japanese ball sales.

What about this double-cover mumbo jumbo? It's a convenient way to describe a ball, even if it isn't accurate. The new Bridgestone ball, which will be called Precept Tour in this country, has a cover stock on the outside and a second layer of rigid, undimpled material on the inside (this is also true of the new Top-Fitte ball).

The Precept Tour has a solid center surrounded by windings. Add the cover and the interior layer and — whammo — there are four pieces.

The Top-Flite ball, used by O'Meara to win the Greater Greensboro Chrysler Classic, has three pieces. There is the solid core, plus the cover and inner layer. The ball should be available in July.

According to the tour players who have used them, both balls have a soft, balatalike

feel. Both will be promoted with a story that sounds too good to be true — less spin off the driver, more spin with the short irons. How can this be?

I called Rick Watson, director of golf ball marketing for Top-Flite, and got what might be the quote of the year: "It's like a golf ball with a two-speed transmission."

I know, I know. What if your game gets stuck in first gear?

"From 100 yards and in." said Watson. "where better players tell you they need the

balls to kick in for them, the soft cover gets pinched against the inner layer and creates a high spin rate."

Hmmm.

The idea here is to produce optimum distance and feel — the best of both worlds — and still adhere to the distance and velocity limits of the U.S. Golf Association (both new balls already have been approved by the USGA). "We're getting closer to the perfect golf bail." Watson said.

Which doesn't mean that tour players will switch en masse to the new balls. Nick Price and Raymond Floyd will continue to use the Precept EV Extra Spin, and Craig Stadler and Payne Stewart will stay with the Top-Flite Z-Balata. According to Watson, the new Top-Flite bail has a slightly lower trajectory than the Z-Balata.

The new balls from both companies probably will carry a discounted street price of about \$40 a dozen.

All this, of course, is a prelude to the Talking Brain. We have seen the future, and it is very smart. Too smart, if you ask me.



Ex3

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Kankakee Journal

May 21, 1996

One-liners

Top-Flite introduced a new multilayered golf ball designed to deliver unequaled spin control. Says Jenny Church, "They're calling it the Political Consultant." 5×.4

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UNION-NEWS

JUNE 4, 1996

Spælding: New golf ball a big hit

Continued from Page A1

turing/procurement.

The ball's construction is designed to give the golfer more distance and more control.

Spalding officials wouldn't comment on an exact dollar figure for the expansion or how many jobs will be created as a result.

"Top-Flite's worldwide market share is continuing to grow. This expansion is necessary to support our growth and, in particular, our exciting new multi-layered technology," said Scott Creelman, senior vice president of golf products worldwide.

The increase in production capacity will be spread over Spalding's Chicopee and Gloversville, N.Y., plants. However, what proportion of the 40 percent increase will take place at each plant has not been determined as Spalding officials rush to complete plans.

"A lot depends on the growth of the whole golf products family and what products we intend to grow," said Brisbois.

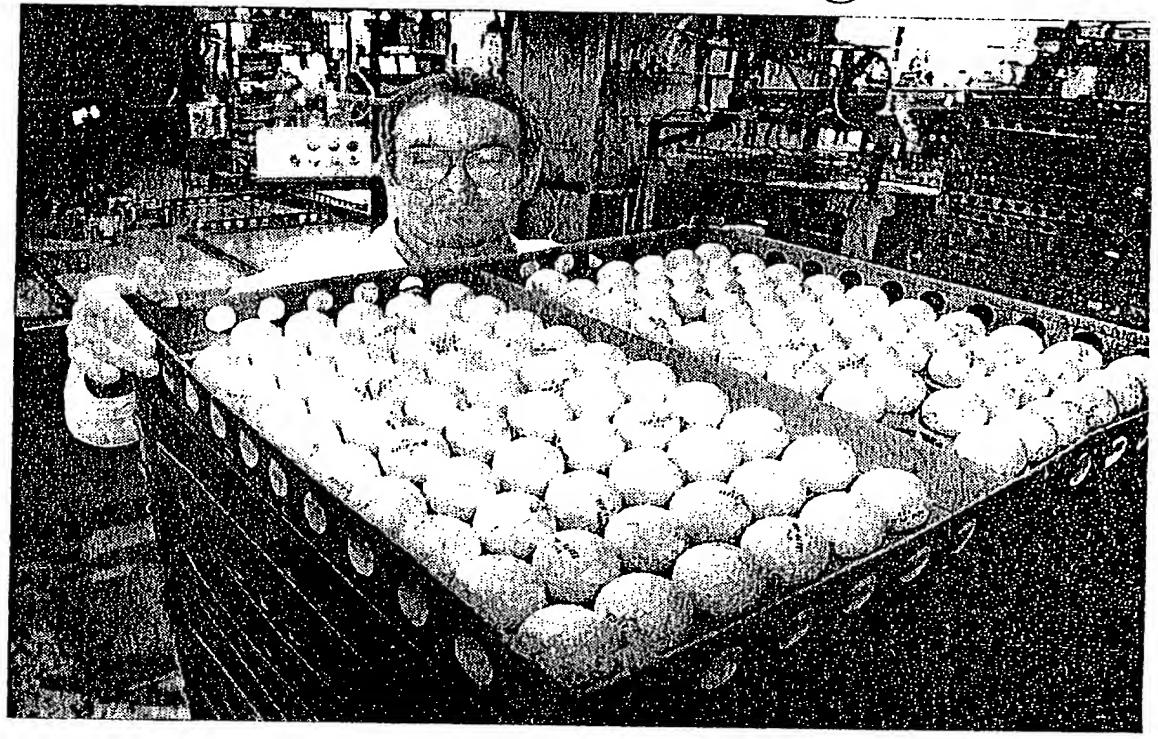
Each plant is expected to be expanded by about 25,000 square eet. The Chicopee plant, which ncludes offices, manufacturing and warehousing, is currently 700,000 square feet. The Chico-

pee plant has a 1,000-person workforce, 600 of whom are production workers.

The Gloversville plant is 116,-000 square feet and employs 180 people.

Meanwhile, Spalding remains on the selling block. Parent company The Cisneros Group of Venezuela announced last month that it was selling its Spalding and Evenflo divisions to concentrate on its telecommunications business. The sale is expected be a six- to nine-month process.

Spalding, which markets its golf balls under the Top-Flite brand name, is the self-proclaimed No. 1 golf ball manufacturer in the world. Its \$1 million golf ball challenge, which offered



Spalding employee Avelino Santos stacks a batch of golf balls at the company's Chicopee plant. The company yesterday announced a three-year expansion project that will increase golf ball production by 40 percent at the company's two golf ball plants.

\$1 million to any company that could prove it sells more balls than Spalding, went unchallenged.

Spalding believes that the 25 million dozen golf balls it sells annually represents 33 percent of the world's golf ball market. Spalding's share of the golf ball market has been growing at a pace in which it believes it can own 50 percent of the world market by 2000.

The three-year expansion plan was designed based upon growth rate before the introduction of the Top-Flite Strata.

"This will probably be one of the most successful products that Spalding has ever launched," said Vaughn Rist, a Spalding spokesman. The Strata introduced a new ball construction in the golf ball industry with its three layers. Golf balls have been a twolayer unit with a core and a covering. The Strata ball has a large, soft high-energy core that is surrounded by a hard middle layer that Spalding claims adds distance.

The outermost covering is made of a soft balata material that is designed to generate spin. In the two-layer construction,

the covering materials are varied to give the ball different playing qualities. Hard covers provide more distance and less control. Soft coverings provide more control less distance.

Strata's construction combined both control and distance. according to Spalding officials.

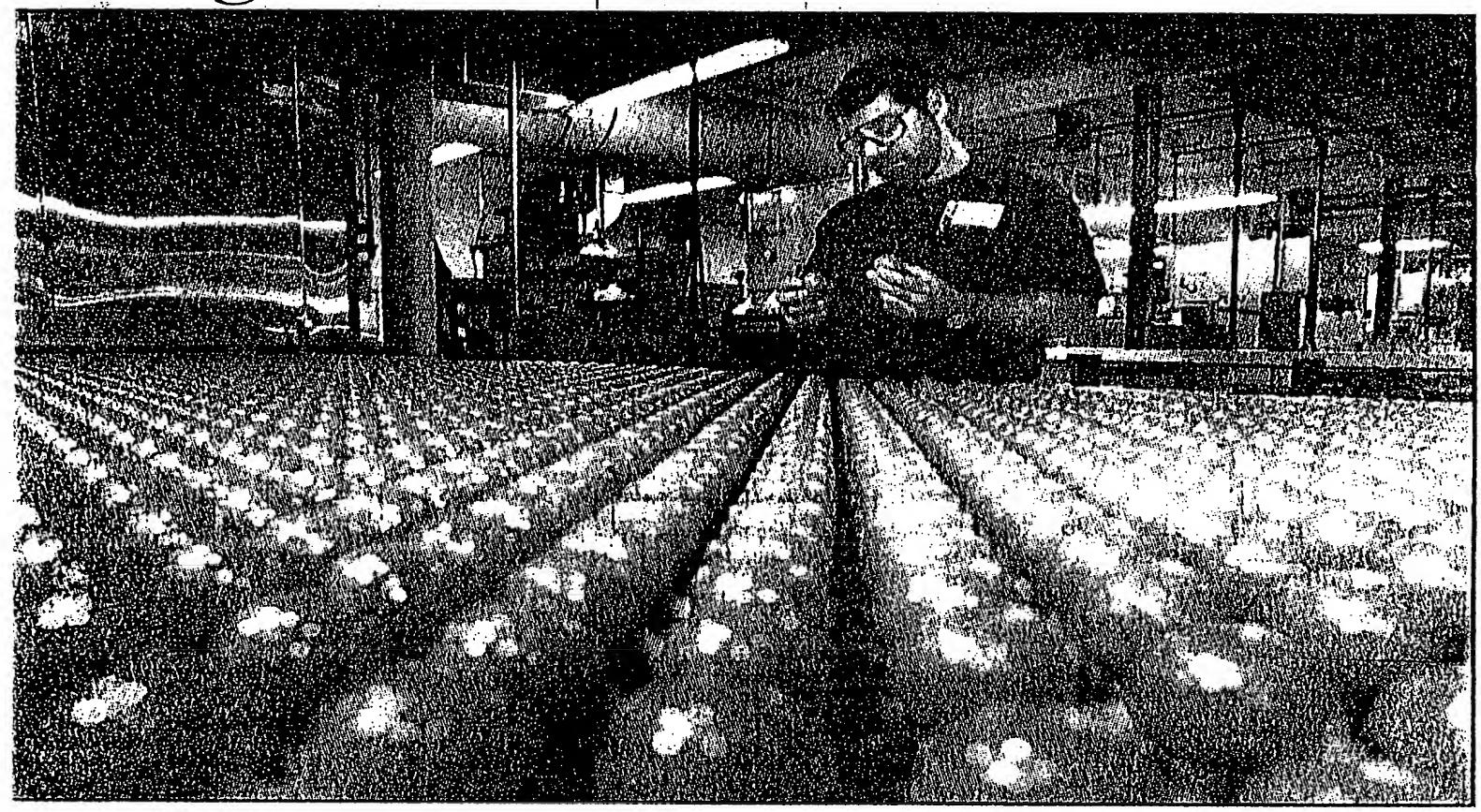
The Chicopee plant manufacturers an average of 72,000 golf balls per day and operates its production three shifts per day six days a week.

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UNION-NEWS

JUNE 4, 1996

laving a ball



Union-News file photo by JOHN SUCHOCKI

ao Henriques inspects golf balls as they leave the curing oven last fall at Spalding Sports Worldwide in Chicopee. Spalding sterday announced plans to expand golf ball production by 40 percent at its two golf ball plants.

Spalding speeds up expansion plan

shed up the timetable for expansion by Spalding Sports orldwide.

By BILL ZAJAC

Stall writer

CHICOPEE — A multi-miln dollar, three-year expansion oject that will increase golf Il production by 40 percent in its two plants was announced yesterday by Spalding Sports Worldwide.

The plans for expansion are being accelerated by the company because of the overwhelming success of a revolutionary new ball that Spalding introduced two weeks ago to the public.

The expansion was to begin in January 1997, but it will begin next month instead because of the demand for Spalding's Top-Flite Strata.

The new multi-layered ball was to be introduced next week at the U.S. Open, but questions about it arose within the golf industry when PGA Tour player Mark O'Meara won the Greater Greensboro: Chrysler Classic April 28.

At the time, Spalding released some information on the ball but wouldn't reveal its name until its introduction.

The demand for the ball is so great that Spalding is limiting quantities it ships to customers. Customers are limited to receiving six dozen balls per month.

"We can't make these balls fast enough," said Michael Brisbois, vice president of manufac-

Please see Spalding, Page B11

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SCHENECTADY GAZETTE

JUNE 5, 1996

Spalding factory to grow

By JIM McGUIRE Gazette Reporter

GLOVERSVILLE — Spalding Sports Worldwide will expand its Gloversville golf ball factory to produce its new Top-Flite Strata ball.

The project was presented Tuesday to the Fulton County Industrial Development Agency, which voted to sell Spalding over five acres adjacent to the existing 34.440-square-foot plant in Crossroads Industrial Park.

The 19.000-to 25.000-square-foot expansion, scheduled for completion in December, will cost about \$1.5 million and will create more than 30 new jobs, the IDA board was told. Spalding, which also operates a golf club manufacturing plant next to the golf ball factory, currently employs a total of 147 people.

Spalding Worldwide Sports. owned by The Cisneros Group of Venezuela. is for sale. But Fulton County economic development officials said they were told the possible sale will not affect the Gloversville expansion project.

Staffing levels at Spalding in Gloversville have exceeded 200 with seasonal work fluctuations, said Peter A. Sciocchetti, vice president for marketing of the Fulton County Economic Development Corp.

Sciochetti said Spalding is investing millions of dollars above the cost of construction in the installation of two new production lines for its Strata ball and replacement of the existing three production lines for its other Top-Flite models.

"They [Spalding officials] think this new ball is going to be state of the art." Sciocchetti said. Construction is scheduled to start in early July, he said.

Spalding executives could not be reached Tuesday for comment. but a news release issued by the company described the multilayer Strata as a "breakthrough technology" that will create "extraordinary demand" and the need for a "major multimillion dollar expansion of production capacity."

The Gloversville expansion is part of a three-year program designed to increase production by 40 percent, the news release said. A 25.000-square-foot addition will be built in Chicopee. Mass., its headquarters, but Sciochetti said all Strata production will take place in Gloversville.

Spalding, which opened its first factory in Gloversville in 1988, has held an option to buy the additional land for \$10.000 per acre. That deal was authorized Tuesday by the IDA board.

The addition will be built on the west side of the existing plant. Sciochetti said Spalding may have more than 230 employees in Gloversville in the near future.

Ex6

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ALBANY TIMES UNION

JUNE 7, 1996

Spalding tees up expansion of Gloversville golf ball factory

GLOVERSVILLE — Spalding Sports Worldwide plans a \$1.5 million addition to its Gloversville golf ball factory, the Fulton County Economic Development Corp. and the county Industrial Development

Agency announced Thursday.

Construction is expected to start in July on the 28,000-square-foot addition to the 34,440-square-foot plant.

The plant will be expanded to manufacture the new Top-Flite Stra-

ta golf ball. Spalding is expected to install two new production lines and replace some existing lines.

"Spalding's presence in our community continues to grow with undaunting commitment," Economic Development Corp. Vice President Jeff Bray said. "Spalding's continued expansion speaks volumes regarding the ability to do business in Fulton County."

Spalding is expected to employ more than 230 people soon. The golf ball division is up for sale, but economic developers expect local production to be unaffected.

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Top-Flite debuts the Strata Tour

Spalding officially has thrown its balata into the muitilayered ballconstruction ring.

Top-Flite sales representatives have started strutting the new Strata Tour to approximately 5.000 Top-Flite's multilayered golf ball select green-grass and

off-course accounts. The Chicopee. Mass., company will begin shipping the

and feel, said Rick Watson, director of

marketing for Top-Flite Golf Company. "We're launching the ball to increase Top-Flite's presence on tour, in proshops and among premium users." Watson said. "I think over time this [multilayered] category will take over the wound performance category."

Top-Flite plans a multimillion-dollar advertising and promotion campaign to get the ball rolling. Mark O'Meara will be featured in a 30-second spot touting the Strata. which he used while winning the Greater Greensboro Chrysler Classic last April.

ball next week.

The three-piece ball, available in 90and 100-compression models, consists of a "high energy" soft core, a hard mantie layer and a balata cover. It's designed to give the low-handicap

player a combination of distance. spin Continued on page 4

"I think we filled a real gap with performance," said Mike Sullivan, senior director of research. "We're bringing something genuinely new to the market."

The ball's suggested retail price is \$52 a dozen, but Watson doesn't see price as an obstacle. "I think people will spend more on equipment if they think it will help their game." Watson added: 'The multilayered race is on [with Bridgestone and Wilson]. It now comes down to who can communicate the story in a better way."

-Alan P. Pittman

Ex 8

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GOLFWERK

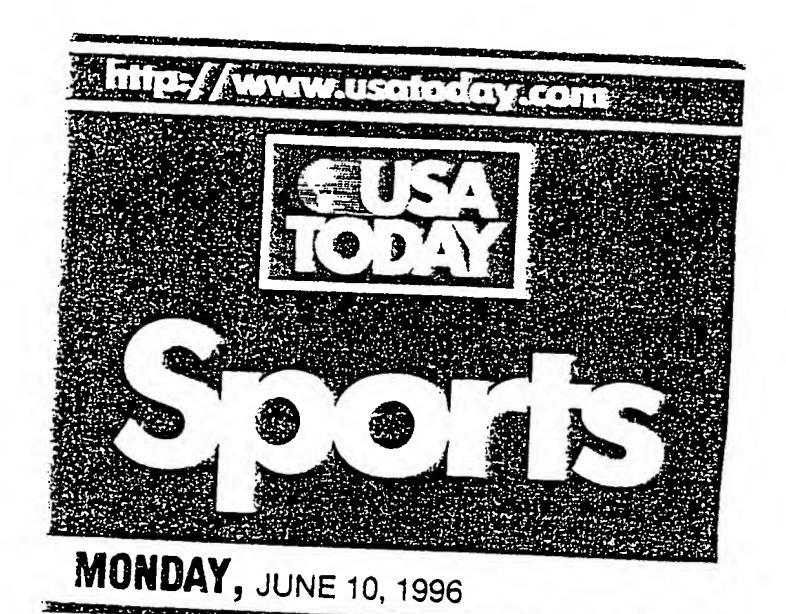
JUNE 8, 1996

Top-Flite to unveil Strata ball June 11

Spalding's Top-Flite division will officially unveil its new multilayer ball June 11. The new ball, called the Strata, has a soft outer cover for spin and control, and a hard inner layer to promote distance. Suggested retail will be \$52 per dozen. PGA Tour pro Mark O'Meara has been playing the ball since April.

Rick Watson. Top-Flite's golf ball marketing director. said Top-Flite has had a patent on a multilayer ball since 1984. "We were very patient in bringing out the product." he said, citing more than a decade of product development.

EX.9



Junior golfers prepare for 10-event tournament

From staff and wire reports

Golfers from 35 states have entered the PGA Junior Series. 10 events conducted by the PGA of America for boys and girls ages 13-17.

The first 36-hole event is Tuesday and Wednesday at Scottsdale, Ariz. The series ends July 23 at Vass, N.C.

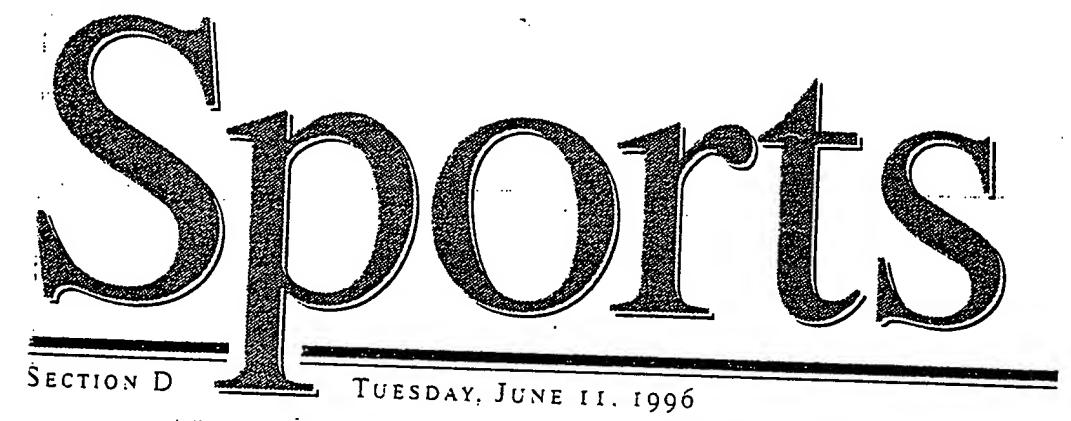
The top two boys and girls in the age 15-17 group qualify for the Maxfli Junior Championship Aug. 19-22 at Palm Beach Gardens, Fla. Each boys and girls age-group winner from the first six events qualifies for the Junior World Championships July 16-19 at San Diego.

Honored: Jim Gallagher Sr., 58, pro at Meshingomesia

Country Club in Marion, Ind., is the lone 1996 Indiana Golf Hall of Fame inductee. He has three children on pro tours: sons Jim Jr., 34, and Jeff, 31, on the PGA Tour and daughter Jackie, 27, on the LPGA and Futures tours. The induction is Sept. 16 at Meshingomesia.... Top-Flite is to introduce its multilayer golf ball, the Strata, Tuesday at Bloomfield Hills, Mich. Suggested retail price: \$52 a dozen. . . . The U.S. Golf Association gave \$25,000 to the LPGA for its Urban Youth Program that reaches more than 5,000 inner-city youngsters in Los Angeles; Detroit; Portland, Ore.; and Wilmington, Del. The USGA has given the LPGA \$78,000 over the years.

Ex-10

The Detroit News.



BEHIND THE SCENES AT OAKLAND HILLS



VARTAN KUPELIAN

MIKE O'HARA

Open market

The U.S. Open is a midseason gathering place for the golf industry. Equipment manufacturers with hot new products often use the Open for summer debuts.

Top-Flite will display its new Strata Tour ball today at a media briefing at Indianwood Golf & Country Club in Lake Orion.

Mark O'Meara will attend the festivities.

Ex. 1)

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Wilkes Barre (PA) Citizens' Voice June 12, 1996

Bargain ball: Spalding is using the U.S. Open to begin marketing a new golf ball. The multilayer Top-Flight Strata Tour combines a soft Balata cover with a firm inner layer and high-energy core. It isn't cheap. The suggested retail price is \$52 a dozen.

Wilkes-Barre, PA Citizens' Voice Sorenton Mat Area

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JUN 14, 1996

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AVALANCHE-JOURNAL

JUNE 12, 1996

U.S. Open notes

Spalding is using the U.S. Open to begin marketing a new golf ball. But the multi-layer Top-Flight Strata Tour already had quite a launch before the launch, so to speak.

Touring pro Mark O'Meara has been using the ball for several weeks.

In that time, O'Meara has won the Greater Greensboro and Memorial tournaments, finishing second at the MCI Heritage and Kemper Open. O'Meara is \$678,600 richer and 51-under-par since he began playing the ball.

According to Spalding, the multi-layer design of the ball — designed for pros and top-level amateurs — combines a soft Balata cover with a firm inner layer and high-energy core. But it isn't cheap. The suggested retail price is \$52 per dozen.

EX. 13

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DAILY SOUTHTOWN

METRO EDITION

JUNE 12, 1996

The next generation

Woods, Daley, Pavin tee off together

By The Associated Press

BLOOMFIELD HILLS, Mich.

— It is a pairing made for Generation X: John Daly, Tiger Woods and Corey Pavin.

They represent power, youthful charisma and skill on a golf course. And they will tee off at 12:20 p.m. Thursday in the first round of the U.S. Open at storied Oakland Hills Country Club.

"I think it is going to be lot of fun," said Woods, the 20-year-old junior from Stanford University. "I know John. I just saw him on the putting green and he is excited to play. I am sure Corey is just going to grind away like he always does.

-- "I think we are going to have a lot of fun out there."

Daly and Pavin, of course, are seasoned professionals. Woods is perhaps the best-known amateur since Jack Nicklaus. He has drawn the biggest crowds during the first two days of practice for the 96th Open.

For one thing, the 6-foot-2. 160-pound Woods can crank the ball just as far off the tee as the free-swinging Daly. So he won't be intimidated.

"Because of his long swing, John can carry it past me on the fly," Woods said Tuesday. "But on a firm fairway, I hit a lower ball and turn it over a little bit. If my ball hits hot, it will roll.

"Here, he will probably outdrive me all day, because it's soft. At Augusta, it is a different story because ... it's like hitting on this table here. So, I was able to run it past him." Daly and Pavin both have won major championships; Daly the PGA and British Open, Pavin the U.S. Open. There are many, how-

U.S. OPEN NOTEBOOK

ever, who feel Woods may one day be the best of the bunch. He already has an impressive resume.

Woods already has played in two Masters tournaments, one British Open and one U.S. Open. That makes this his fifth major championship.

Some feel Woods, one of six amateurs in a field of 156, already has won his share of majors. He has won two U.S. Amateur championships and recently won the 1996 NCAA championship.

If he should win the U.S. Amateur again this summer, Woods might carve his name forever in the record books. Nobody — not the great Bobby Jones nor even Nicklaus — has ever won the U.S. Amateur three times.

After that, there is great speculation that Woods will turn pro. The Milwaukee Open happens to be the regular PGA Tour stop the week after the U.S. Amateur, and Woods has a sponsor's exemption into that tournament.

"I go to a tournament to win," Woods said. "I wouldn't be here if I didn't think I could."

BALL LAUNCH: Spalding is using the U.S. Open to begin marketing a new golf ball. But the multilayer Top-Flight Strata Tour already had quite a launch before the launch, so to speak. Touring pro Mark O'Meara has been using the ball for several weeks.

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According to Spalding, the multilayer design of the ball — designed for pros and top-level amateurs — combines a soft Balata cover with a firm inner layer and high-energy core. But it isn't cheap. The suggested retail price is \$52 per dozen.

PLANNING AHEAD: The Pinehurst, N.C., region just staged the U.S. Women's Open last week at Pine Needles Resort, but organizers aren't wasting any time getting ready for their next test, the 1999 U.S. Open.

Pinenurst representatives are at Oakland Hills this week. They are studying the overall setup, but merchandising in particular. At Oakland Hills this week, a 20,000-square foot merchandise tent sits adjacent to the first green. It has been open to the public since Sunday. The tournament doesn't begin until Thursday, but some items, particularly sweatshirts, already are becoming scarce.

"The representative from Pinehurst wanted to take a good look at what we've done here," Cross Creek sales rep Nancy Pentiuk said. "They've already got their logo ready and they want to capitalize on the great interest in the U.S. Open."

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LOS ANGELES TIMES

JUNE 14, 1996



Bargain ball: Spalding is using the U.S. Open to begin marketing a new golf ball. The multilayer Top-Flight Strata Tour combines a soft Balata cover with a firm inner layer and high-energy core.

It isn't cheap. The suggested retail price is \$52 a dozen.

EX-15

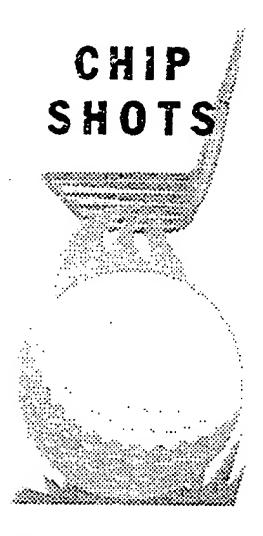
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--STATE* LEGAL 800-222-0510 ED11 RECYC



BOSTON GLOBE

JUNE 20, 1996



GOLF BALL numbers for you to digest over morning coffee. According to Associated Press, the range at the US Open was stocked daily with 686 dozen Titleists, 300 dozen maxflis and 100 dozen Top-Flite Stratus. Workers at the range said each of 10 sweeps made daily picked up some 200 dozen goif bails, meaning 240,000 balls were struck daily. And who was the best customer? Tiger Woods reportedly hit more than 400 balls on each visit.

Ex-16

3



ATLANTA BUSINESS CHRONICLE JUNE 20, 1996

New generation

The two-camp world of golf bails — those who prefer wound balls and those who prefer two-piece — may be coming to an end. Top-Fitte soon will market a multilayer ball it says will combine the best of both worlds.

Spaiding, Top-Filte's parent company, patented multi-layer golf ball construction in 1984.

"But not until the last couple of years were we able to put it all together." says Mike Sullivan. senior director of research at Too-Flite. "This ball does things neither a wound nor a two-piece ball can do. It has the feel of a wound ball — but the distance of a two-piece ball off the tee.

"We call it a 'spin on demand' product." This model, at \$35 a dozen, is designed for pros and low-handicap amateurs, but models for higher-handicap players will follow.

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CITRUS COUNTY CHRONICLE CRYSTAL RIVER, FL JUNE 23, 1996

Golf News

Spalding's Top-Flite division has released their new ball called the "Strata." The ball has a soft outer cover for spin and control and a hard inner layer to promote distance. Pro Mark O'Meara has been using the ball since April. The ball has been in R&D since 1984. Perhaps we average golfers should not use the ball on a deep water hole as the suggested retail price is \$52 per dozen or a little over \$4.30 per ball.

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EX-18

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MACOMB DAILY

MT. CLEMENS, MI

JUNE 23, 1996

MORE GOLF BALLS: The driving range at Oakland Hills was open from 5:45 a.m. to 8:30 p.m. daily during the Open and was stocked with 686 dozen Titleists, 300 dozen Maxilis and 100 dozen Top-Flite Strata.

and 100 dozen Top-Flite Strata.

The two staffers who ran the range said they made 10 sweeps a day to retrieve balls, picking up about 200 dozen each time. That works out to about 24,000 balls hit each day.

Tiger Woods was one of the hardest workers on the range, hitting more than 400 balls each visit.

Ex.19

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POST-DISPATCH

ST. LOUIS, MO

JUNE 27, 1996

MORNING BRIEFING



Belle Of A Ball: The golf ball is the biggest difference today, says MIKE SOUCHAK, who shot record score in 1955.

Souchak might like today's golf bails, but he probably wouldn't like paying for them. For example, Spaiding is marketing a new bail: The multilayer Top-Flight Strata Tour combines a soft Baiata cover with a firm inner layer and high-energy core.

You can pick up a dozen, but bring your plastic: The price tag is \$52.

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EX. 70

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BUSINESS REVIEW

JUNE 30, 1996

Emerging technology for multi-layer golf balls drives expansion of Gloversville Spalding plant

By MICHAEL FARRELL

Spalding Sports Worldwide Inc. plans to build a 25,000-square-foot addition to a facility in Crossroads Industrial Park in Gloversville.

The company already has a 34, 440-square-toot golf ball factory in the park, as well as an 80,000-square-foot plant that makes golf clubs. The addition is being proposed to accommodate production of a new multi-layer golf ball called the Top-Flite Strata. The addition will cost about \$1.5 million, with construction expected to begin in July.

"Top-Flite's worldwide market snare continues to grow," Scott Creelman, senior vice president for golf products worldwide, said in a prepared release. "This expansion is necessary to support our growth and, in particular, our exciting new multi-layer technology."

The three-year expansion plan—which also includes a 25,000-square-foot addition to

the company's manufacturing and headquarters facility in Chicopee, Mass.—is expected to increase existing capacity by 40 percent.

Spalding Sports also will invest millions more to revamp production lines and purchase new equipment for the Gloversville plant. When the local building is completed in December, it will be the only Spalding factory manufacturing the Strata line.

"Spalding's presence in our community continues to grow with undaunting commitment," Jeffrey Bray, executive vice president of the Fulton County Economic Development Corp., said in a prepared release. "Spalding's continued expansion speaks volumes regarding the ability to do business in Fulton County."

Spalding already employs about 200 seasonal workers at the Gloversville factories. The company expects to hire an additional 30 people after the addition is completed.

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MERCURY

POTTSTOWN, PA

JULY 3, 1996

New balls, clubs aid Weibring

By RON SIRAK AP Golf Writer

D.A. Weibring had a great weekend at the Greater Hartford Open, winning for the first time since being sidelined with Bell's palsy. It was also a good weekend for Top-Flite.

Weibring, who missed only 11 fairways in four rounds, drove with the titanium insert Intimidator driver, used the Tour irons and played Top-Flite's new multilayer Strata Tour golf ball.

"I tested it at Hilton Head," Weibring said. "I was really impressed. It might fly just a little bit lower, but for the 30-yard chip shots and for putting it was a little bit softer."

The Strata Tour ball has won twice in just two months on the tour. Mark O'Meara won the Greater Greensboro Classic in April.

"I played Maxili an awful long time." Weibring said. "The Top-Flite people really took time with me last fall and we tested about six different balls. It was a very unique feel and softer feel without question." Weibring said about the three-layer Strata.

With everything else in his bag carrying the Top-Flite label, what did Weibring putt with at Hart-

ford?

"A putter that I kind of worked on with Scotty Cameron." Weibring said. "It has a lot of Dave Pelz influence in it. Scotty made it for

me about a year ago."

Weibring, who had to take three months off after being diagnosed in February with Bell's palsy, a muscular condition that is caused by a virus and is marked by suddenly recurring paralysis on one side of the face, has an unusual way to stay focused while putting.

"You know, kids use those big markers to draw with." said Weibring, who has three children. "When I'm over a tricky putt, like that 15-footer on No. 16 on Sunday at Hartford, I visualize if Allison (his 8-year-old) were there and if she had a marker to draw a

line to the hole."

Weibring has a ritual chat with Allison before each round.

"I ask her. What color today. Allison?' And she tells me." Weibring said. "It's better than having a lot of other clutter in your mind when you are over a putt."

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EX. 22

TIMES HERALD

NORRISTOWN, PA

JULY 5, 1996

Weibring had bit of help in Hartford

The Associated Press

D.A. Weibring had a great weekend at the Greater Hartford Open, winning for the first time since being sidelined with Bell's paisy. It was also a good weekend for Top-Flite.

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Ex23

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REGISTER CITIZEN

TORRINGTON, CT

JULY 21, 1996

New clubs, ball add distance, control

ooking to smack the ball a little farther? Want to make the ball dance for you around or on the green?

Apparently so, because two of the more popular innovations in golf equipment these days can help you do both.

For those who want that John Daly feeling off the tee, titanium head drivers have become the club to have. And for those who want that Corey Pavin touch with the ball, a new ball, the Spalding Strata, is the hot thing.

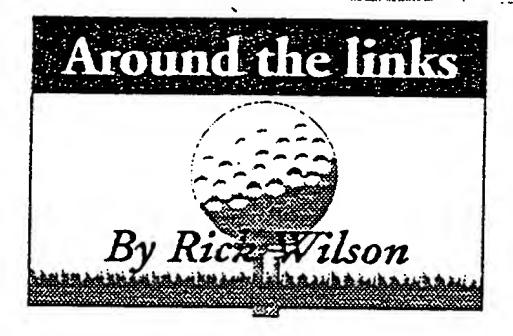
"Titanium is in, in a big way. It's supposed to be stronger than steel and lighter," Green Woods Country Club pro Dave Dell said.

"People really into the game are always in search of the ultimate," Torrington Country Club pro Tom Lavinio said. "And they're buying it. You can hit the ball further with it."

As for the ball, Spalding's latest is constructed differently and can be made to behave a lot like a balata ball, allowing the use of backspin, among other things.

"It has a better cover," Lavinio said. "It's softer and players are looking for a soft cover because it gives them more control. The hard cover balls just don't do what you want them to some times."

The titanium drivers are lighter than a normal driver, but stronger. Therefore the heads can be made bigger with a bigger sweet spot. The idea is to be able to bring the head through



faster and hit the ball further.

"All the major manufacturers – Taylor Made, Big Bertha (Callaway), etc. – have stainless steel oversized heads and titanium heads," Dell said. "You have to make sure that you don't get a copycat. A lot of companies are using a titanium alloy and selling the club for a cheaper price. There's no question it is inferior."

Will the titanium head improve your game? Probably. But for the average golfer, more practice on the swing instead of worrying about what's being swung may be the answer.

"(The average golfer) might see a slight improvement," Dell said. "But, it just makes the game a little more fun. It makes the equipment a little more exciting to use."

Titanium head drivers are running from \$250-\$400, making it hard for the average golfer to buy one, anyway.

Spalding's new ball has two covers, an inner hard one and a softer outer one, unlike a regular ball which has a core and a molded cover on it. When you hit the ball hard, the outer cover

compresses, allowing the ball to be hit further.

Around the green on a delicate shot, the club just hits the outside cover, allowing for a lot of spin and control.

"I was using a Titleist Tour and I switched," Lavinio said. "My tee shot goes 10-15 yards further and the ball is very good around the green."

The Strata is not cheap. A sleeve of three balls cost between \$10-15 while a dozen can go from \$40 to \$55.

. "Usually you can get them in most pro shops, but they are hard to get," Dell said. "(The companies) can't keep up with the demand."

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BUSINESSWEEK

JULY 29, 1996

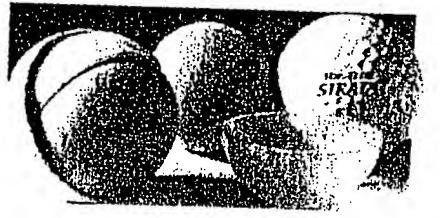
A PUBLICATION OF THE MCGRAW-HILL COMPANIES

\$3.50

PRODUCT PEEK

THE BELLE OF THE GOLF BALLS

THEY'RE FLYING OFF THE shelves as fast as they are off the tee. At \$3 each, Top-Flite's new Strata balls, which appeared in June, cost



\$3 APIECE: But sales are brisk

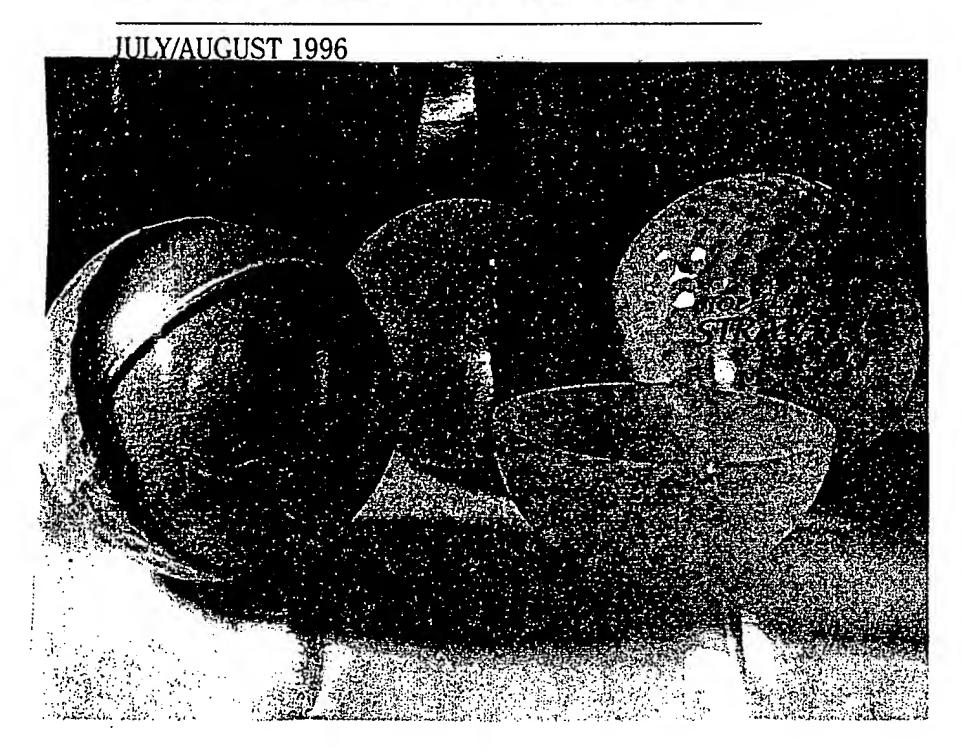
three times as much as regular golf balls. Still, pro shops are hard put to keep them in stock.

Spalding-owned Top-Flite hopes the Strata's popularity will boost the company's No. 2 market share in highend balls from 20% to 30% by next summer, overtaking leader Titleist. Used by proseand low-handicap golfers, the hardy balls are one-third of the \$602 million golf-ball

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EX-28

Golf Product News®



A layered look

The new multi-layer design of the TOP-FLITE STRATA TOUR golf ball combines a supersoft ZS Balata cover with a firm inner layer and high-energy core. The result is said to provide maximum distance from woods and irons, with enhanced feel and control on short iron shots and around the green. Designed for pro-

fessional and top-level amateur players, the ball is available in 90 and 100 compression.

The introduction will be supported by a multi-million dollar advertising and prom tion campaign featuring PGA Tour professional Mark O'Meara in a 30-second TV commercial.

TOP-FLITE GOLF
For more information circle no. 101

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GOLF MAGAZINE AUGUST, 1996

HOTTOPICS

MARK O'MEARA is one of the Tour's best pitchmen, but his impromptu commercial for the new TOP-FLITE STRATA BALL went a little awry a while back. O'Meara was paired with Corey Pavin at Bay Hill when they reached the 12th tee and had a little time on their hands. So O'Meara started his spiel.

"Hey, Higgy," O'Mcara said to his caddie, Jerry Higgenbocham, "we've been playing with this ball for 12 holes and it's still good. But, what the heck, let's get a new one."

Higgenbotham tossed the ball to a kid in the crowd, who just happened to be Ryan Pavin. Corey motioned his son over and whispered in his ear. The ball went flying back toward O'Meara, and the next sound was Ryan yelling, "Hey. Mr. O'Meara, I only play Titleist."

8. UPPER STRAIA. The new Top-Flite Strata now has the distinction of being the most expensive ball in golf, retailing for \$52 a dozen. In other words, every time you lose a ball, it costs you a six-pack.

EX.27

EQUIPMENT





Double covers, multiple layers enter the ball market

Mark O'Meara wins twice on the PGA Tour with two different golf balls. O'Meara plays a wound, three-piece Titleist Tour Balata to win the season-opening Mercedes Championship and 16 weeks later wins the Greater Greensboro Chrysler Classic using Top-Flite's new Strata Tour, a three-piece, solid-core ball made with what the company calls "multi-layer technology."

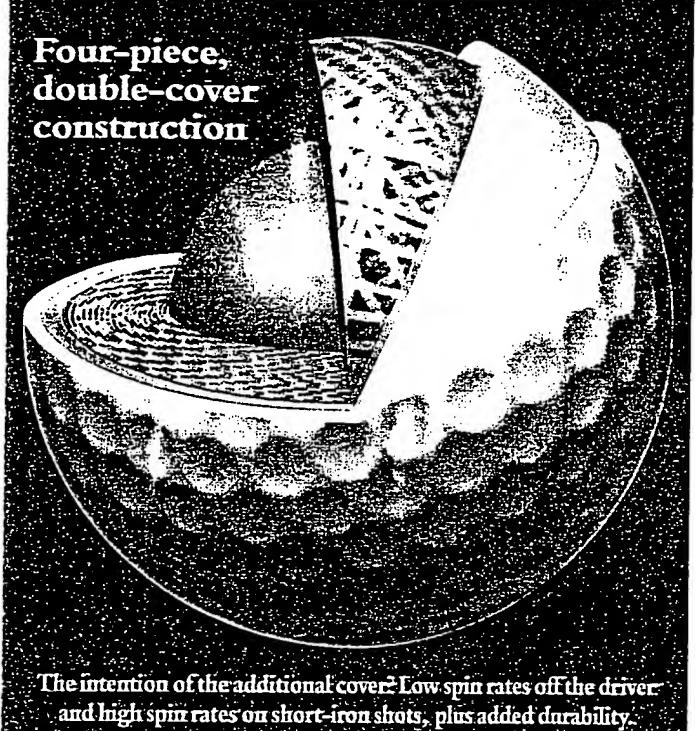
Corey Pavin won the 1995 U.S. Open with a Titleist Tour Balata and then added a victory several months later at the Nedbank Million Dollar Challenge in South Africa playing Titleist's new two-piece ball, the HP2 Tour.

What gives here? Are goif The intentional balls so similar that the top players in the world can win from week to week using different remodels?

"You had huge trade-offs between balls before," says Hank Rojas, the president of Bridgestone, one of the game's major ball manufacturers. "Now the trade-offs are not quite as big."

PGA Tour winners emphasize this broadening of the marketplace. As of the Memorial Tournament (21 events), three types of wound, three-piece balls accounted for 15 victories. Four types of high-spin two-piece balls accounted for four wins and the remaining two victories came via new entries—Bridgestone's four-piece ball and Top-Flite's Strata Tour. That's four different construction methods but nine different models. That kind of variety was unthinkable just a decade ago.

"Each ball out here has its own great characteristic," says Lee Janzen, who has played Top-Flite, Titleist and Bridgestone balls during his career, "It's



really up to the individual player as to what he's looking for in a ball. Someone who hits a low bail wants a ball with a lot of spin while somebody like Greg Norman, who hits it very high, doesn't want a bail that spins a lot. Most balls have certain little things that make each of them different from the next."

The new Bridgestone and Top-Flite balls are the latest entries in the market that attempt to perfect the feel, distance and durability equation.

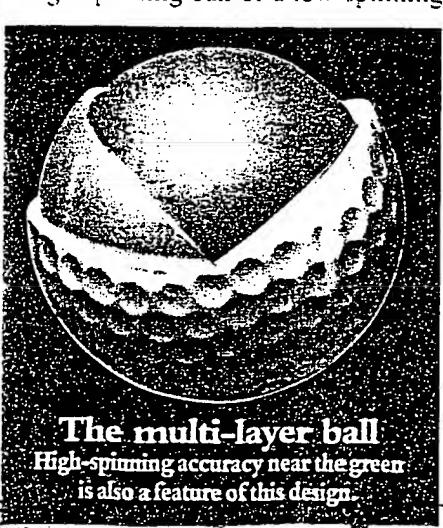
Bridgestone's new Precept Tour, which will be available this fall, is a wound, four-piece ball that Nick Faldo used to win the Masters this spring. The ball is similar to a traditional wound, three-piece ball (core, windings, cover) except that Bridgestone has added a smooth, inner cover, or mantle, under the outside cover. Call it double-cover technology...

"The wound part of the ball is not quite as big as that of a traditional threepiece balata ball," says Rojas, "It's designed to feel like a balata ball but give you the distance and consistency of a two-piece." Comparing the Precept Tour with another Bridgestone high-performance ball, the two-piece Precept EV Extra Spin. Rojas says the four-piece ball is "softer and spins a little more but may be a little shorter. Its roundness holds up a little better, and it is more consistent over a longer period."

Top-Flite's three-piece Strata Tour is similar to a two-piece ball (core and cover) but differs in that it, too, includes an inner cover, or mantle. Top-Flite calls this process "multi-layering," which is similar to the way Wilson manufactures its Ultra 500 series of balls. The Strata Tour was designed specifically for low-handicap players and for high performance from 50

yards and in according to Mike Sullivan. senior director of research for Spalding.

"The relative hardness between the layers enables you to tailor the spin characteristics of the ball," says Ralph Peterson, manager of research and development at Wilson. "You can make it a high-spinning ball or a low-spinning





ball, and using technology you can modify things such as spin, durability and cut resistance."

Some background information might help. A ball hit with a driver has a higher-impact velocity (it leaves the face faster) than one hit with a wedge. There are two reasons for this: greater swing speed and less loft. As you go through your bag from driver to wedge, the compression on the ball at impact decreases with each club. The harder the hit, the deeper the compression of the ball. The deeper the compression of the ball. The deeper the compression, the more the core and inner layer come into play.

According to the manufacturers of these new balls, the inner cover reduces the compression at impact so that the ball jumps off the face faster and with less spin when hit by a driver. Conversely, when the ball is hit by a wedge, the compression is not nearly as severe and that allows the softer, outer cover to pinch against the clubface and give the ball more spin.

"Multi-cover technology is intriguing, no question about it." says Wally Uihlein, chairman and CEO of Titleist and Foot-Joy Worldwide. "We'll be looking at it to see it it brings to the market any added value where the value previously did not exist."

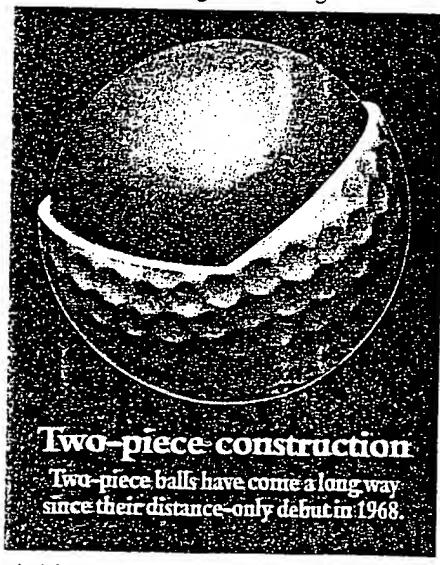
Golf balls continue the trend toward custom fitting for every kind of golfer imaginable. The beneficiary of all this

competition and innovation is the consumer, but only if he or she can keep the various models straight and know what ball best suits his or her game.

Titleist, for example, features six models of two- and three-piece balls in addition to five more in its two-piece Pinnacle line. Top-Flite features seven different models including the Strata Tour. Bridgestone has four balls in its EV line in addition to the Precept Tour. Maxfli has five varieties. Wilson and HPG (Hansberger) have eight, Slazenger has four and Hogan features three models in its line.

For those of you scoring at home, that's 5! different models of golf balls. And don't forget that both Callaway and Cobra will soon become players in the ball market.

"There are not too many horizons to explore in terms of aerodynamics with golf bails, but there are when it comes to the interfacing between golf ball and



clubhead." says Rick Watson, director of golf-ball marketing for Top-Flite.

So what does the future hold for golf bail design? Will we see five- and six-piece balls?

"I think the future is a one-piece ball," says Rojas, "but that's a long way off."

—PETER FARRICKER

Exal

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WARKETPLACE

SPORTS

ESHERRY GROUP LYC.

COMMUNICATIONS SPE

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The Ball Is Golf's Last (Cheap) Holdout

By JAMES P. STERBA
Staff Reporter of The Wald. Street Journal.

ONSIDER THE GOLF BALL. It's the single most popular good in sporting goods, an international roll model. Flight model, too. No orb in sports soars with its ubiquity, or ambiguity. Its arc is a study between celestial grace and farcical kerplopery. But where is this damnably beloved sphere coming from, where is it going, and where

do those who control its fate want it to go? ("In the hole," is an unacceptable answer for treatises at this level!)

Last year, by one estimate, golf balls sold world-wide at a rate of about 2.3 million per day: roughly 83L6 million in all. Two-thirds were bought in the U.S. Excluding cheap driving-range balls, the average retail price was about \$2.50. But they can be had for as little as \$1.25. This, for the golf industry, is the rub: They're too cheap!

No industry in sports has pushed hyperbole's envelope more in recent years trying to convince its players that they can buy a better game. With the number of U.S. golfers stuck at 25 million since 1991 (annual growth: 0.2%, says the National Colf Foundation) equipment makers want golfers to trade up, and often. Their mantra: The more you pay, the better you'll play. It's worked, to some extent, for clubs, fees, shoes and clothes. But not for balls.

In the past decade, ball makers have labored mightily to transmogrify their humble sphere: they reconstituted its internal organs with highly scientific (and secret) plastic gunk. They thickened, thinned, layered its skin. Its body went oversize and underweight. Its dimpled face got more lifts than Phyllis Diller's. It was tarted up like a Happy Hooker (to be fair, we know of no happy slicers). It was made mysterious and "dangerous." It was designed by rocket scientists. It was turned from a ball into a "system."

In 1985, only 147 separate balls (made by 23 companies in eight countries) were listed as "conforming" to golf's official rules. Last year, more than 1,500 different balls (made by 84 firms in 13 countries) were on the list. (An unlisted ball can't be used in sanctioned tournaments; pro Greg Norman disqualified himself from one in June when he discovered his Maxfil ball was stamped XS-9 instead of the listed XS-90.)

So far, the golf ball remains immune to all forms of chicanery. It is a tribute to the free enterprise system—a thousand flavors of vanilla. Today, a golfer can pay \$150 for greens fees, \$100 for a golf shirt, \$175 for shoes and \$1,000 for a titanium driver, and then step up to the first tee and, too often, pull out a ball that cost all of a buck and a quarter.

Oh, the shame of it!

Golf balls are cheap to buy because they're easy to make (as little as 33 cents apiece, by one estimate). Competition is flerce. Creating cheap-ball angst that can be assuaged with expensive balls isn't easy. Generics dictate: Golf balls come in two basic varieties, three-piece, the kind that 95% of professional golfers

use, and two-piece, which 86% of other golfers use.

The three-piece ball has a solid or liquid center tightly wound with rubber threads; most are covered with synthetic balata (the real stuff was made from a tropical tree sap). This ball evolved from a thread-wound, rubber-covered ball invented in Cleveland in 1898. (The Scots, who are credited with inventing the game, used hard leather balls stuffed with a "gentleman's top-hat full" of goose feathers for four centuries. In 1848, the first solid rubberlike ball, called a "gutta-percha," came along. It was made from evaporated tree sap from Malaya, now Malaysia,)

The three-piece ball has a short lifespan—it cuts easily and goes out of round quickly when whacked a few holes. But it has superior "feel" and "control." Pros such as Corey Pavin, who is noted for his re touch on the bail, can hook, slice or add. backspin to these balls at will.

The two-piece ball has a solid plastic center that looks like hardened bub-. blegum, and a plastic cover (usually a Surlyn blend from DuPont). First sold in 1971, it is harder and more durable, capa- . ble of lasting a summer if it doesn't find a pond first. It goes farther than a threepiece but is harder to control. Jack Nicklaus once likened it to playing with a marble. Its virtue is that it is very cheap to make-about \$4 to \$5 a dozen, says ball engineer Troy L. Puckett, president of Cayman Golf Co., maker of regular balls and a so-called outlaw ball sold as the "Desperado" (\$26.95 a dozen retail), which is smaller and heavier and can go

farther than golf's rules allow.

Those rules, enforced by the United States Golf Association and the Royal and Ancient Golf Club of St. Andrews, Scotland, say a ball can't weigh more than 1.62 ounces and can't be smaller than 1.68 inches in diameter (standards adopted in 1932), it can't have an initial velocity off the club face of more than 250 feet per second and can't travel more than 280 yards, on average, when hit with a testing machine that mimics the classic swing of former great Byron Netson. Size wise, a blimp qualifies; weight wise, a Ping-Pong ball. Otherwise, differences are subtle.

There's dimple diversity: Balls on today's conforming list have from 318 to 552 dimples, with different sizes and depths, but balls have been made with as few as 252 and as many as 812. Dimples aid aerodynamics, pulling air over the top and creating pressure underneath, like an air- _ plane wing, and, depending on configuration, causing the ball to fly higher, straighter, farther-or the opposite. Degrees of hardness, or compression, make the ball go farther and more difficult to control-or vice versa. Putting most of a ball's weight near its center makes it spin more, which increases control; with perimeter weighing, distance is gained.

The perfect ball would offer maximum distance and maximum control. But so far, golfers can't have both. They choose between a hard-cover two-piece for distance or a soft-cover three-piece for control, or some new cross-bred mutant that supposedly promises both. It takes a very good golfer to tell the difference between the three- and two-piece, says Frank

Thomas, the USGA's technical director. The average backer can't, although what golfer would admit to being average? What happens when they shop for balls, says Mr. Thomas, is they fall for the hype, opting for balls used by their favorite pros—balls these pros not only get free but also are paid sometimes a half million dollars by ball makers to use.

Mr. Thomas watches all this with detached amusement. Today's balls are better than yesterday's, he says. Quality control is better. Fewer duds per dozen. Clubs are better, too. So, is that why today's professional superstars hit the ball so much farther and so much more accurately than in the past? This is a trick question that Mr. Thomas loves to answer. The answer: Everybody thinks they do, but they don't.

In 1968, the length of the average drive on the protour was 258 yards, he

says. In 1995, it was 263 yards. That's an improvement of only five yards in 27 years. The 1.9% difference is the result of the fact that both golfers and fairways are in better shape these days, he says. As for better accuracy. Mr. Thomas notes that the winning score in pro tournaments is improving at a rate of only about one stroke every 25 years.

That hasn't stopped ball makers from touting each new ball-offering as truly "revolutionary"—the ball that's going to make other balls "obsolete."

Lately, ball makers are stressing that revolutions aren't cheap. Two years ago. American Brands' Acushnet Co. introduced the three-piece "Titleist Professional" at \$50 a dozen (\$4.17 each)—the most expensive ball in golf. In April, Spalding Sports Worldwide debuted the two-piece "Top-Flite Strata" at \$52 a dozen (\$4.33 each)—the new most expensive ball in golf.

Spalding humbly calls its Top-Flite Strata debut "the most exciting product launch in recent history." A \$6 million ad campaign was part of the excitement. The idea, says Scott Creelman, Spalding's senior vice president in charge of golf products, was to "find a product the best players would switch to"; that is, a durable two-piece ball with two "covers": an inner one that's hard and makes the ball go far and an outer one that's soft and, thus, offers good spin control.

He says he can hardly believe the word-of-mouth the Strata is generating (even though it seems like most of the words are coming from his mouth). To wit: It's so hot its entire production is sold out through September; dozens of touring prus are begging for samples; golfers are breaking into other golfers' lockers and stealing them, and offering \$300 a dozen, under the table, for them. (Actually, Pro Golf Discount in Bangor, Maine, among other retailers, has already slashed its price to \$40 a dozen.)

"We see this as an opportunity to obsolete the thread-wound bail." says Mr. Creelman. His boss, George Dickerman, said of another Spalding offering called the "Tour Edition," a plastic-covered, two-piece ball: "In three or four years, we'll make balata-covered balls obsolete." That was 10 years ago. Fore!

EX.29

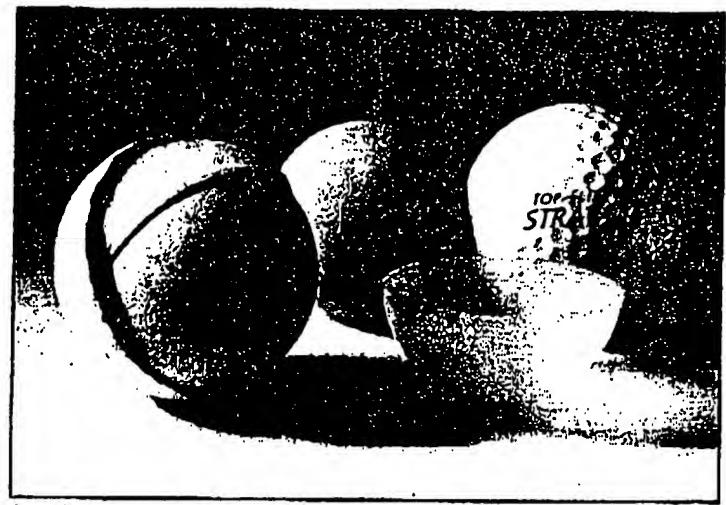
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Los Angeles Times

Monday, September 30, 1996



Spaiding Sports' Top-Filte Strate combines soft- and hard-bell advantages.

HOT STUFF/MARY PURPURA and PAOLO PONTONIERE

New Golf Ball Blends Distance and Control

raditionally, golfers have had to choose between soft balls that offer greater control and hard balls that go further. Now Spaiding Sports Worldwide of Chicopec, Mass., ([800] 225-6601) has developed a ball that combines the benefits of both.

"Never before have we seen such enthusiasm from tour players for a new product during testing," says Mike Sullivan, Spalding's vice president for research and development. The hybrid Top-Flite Strata got a big push when Professional Golfer's Assn. pro Mark O'Meara won two firsts and two seconds in a few weeks using the bail.

What makes the Strata so special? Spalding modified its twopiece tour ball into a three-layer design by adding a hard layer (for distance) around the soft inner core and under a rubbery outer cover (for control). The Top-Flite Strata is available in stores that sell golf equipment and retails for about \$52 per dozen.

EX:30

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WEDNESDAY, FEBRUARY 12, 1997

Innovative three-piece ball suits

'guinea pig' O'Meara's game better

By Jerry Potter USA TODAY

Mark O'Meara has become a good salesman for Top-Flite, even though the only thing showy about him is the scores he's shooting on the PGA Tour.

Eight months ago he was the only Tour player using the Strata Tour ball. Now there are about 35. Total sales of the ball are nearing \$20 million.

"He's not a flashy guy, but other players view him as a leader," said Joe Henley, director of marketing and development for Top-Flite.

Golf

"You can mention Tiger Woods, Tom Lehman and Mark in the same breath when you're talking about the best players in the game."

O'Meara said he was "a guinea pig" when Top-Flite came to him last spring with the idea of playing their new three-piece golf ball that was supposed to combine the best properties of a solid ball and a wound ball.

In the last 13 months O'Meara has earned \$1.9 million on Tour.

He has won back-to-back events — the Pebble Beach (Calif.) National Pro-Am and Buick Invitational — and leads the PGA Tour in earnings with \$710,460 in four events.

O'Meara's success since switching puts him in an unusual position.

He leads the USA in the standings of the Ryder Cup and Presidents Cup.

The USA plays Europe in the Ryder Cup Sept. 26-28 at Valderrama in Sotogrande, Spain.

The Presidents Cup, which pairs the USA against an international team from non-Ryder

Cup countries, will be played at Australia's Royal Melbourne Golf Club in 1998.

O'Meara is taking two weeks off before returning to the Tour at the Nissan Open Feb. 27 in Los Angeles.

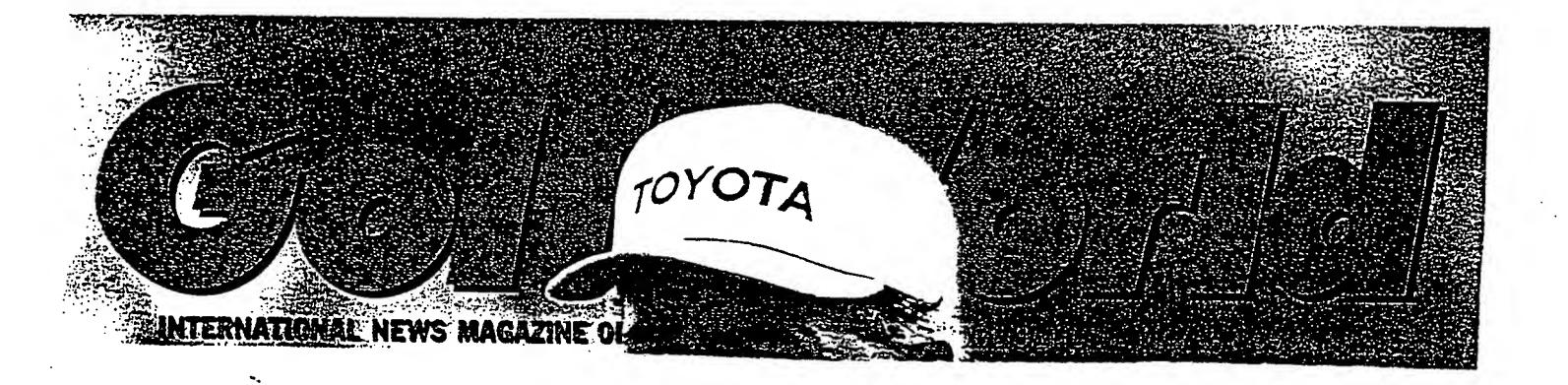
O'Meara has had great success with cars. He has won a Buick, Oldsmobile, Chrysler, Mercedes, Isuzu and a Honda, prizes given out by tournament sponsors. The one he hasn't won: a Toyota, the company O'Meara represents.

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EX.31

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Bunker & Bunker



O'Meara's new gear

people at Taylor Made and Top-Flite the market but with less offset, and more responsible for new equipment devel- of a tour model, but very new." opment O'Meara used Taylor Made's new Burner irons and a soon-to-be- new golf ball that Top-Flite has proreleased Top-Flite multi-layered con- duced. It really doesn't have a name struction ball.

went with the new [Burner] irons that don't have the bubble shaft yet," he said

O'Meara won at Greensbord using new clubs and a new type of ball.

ark O'Meara's victory in the "It's a new design that I've been involved Greater Greensboro Chrysler with. This week I had the 2-iron through Classic was good news for the sand wedge. They're similar to what's on

About his ball, O'Meara said, "It's a yet. It was approved by the USGA "Two weeks ago at the Masters, I [March 25] when the last approval list came out. And basically it's a multilayer construction golf ball.

"That's what Top-Flite wants me to try. I've tested it, and it's going to be introduced at the U.S. Open."

EX.32

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Kasco Rockets
Solid-core,
multi-layer technology is taken
to an extreme
in the fourpiece Rockets.

Golf hall performance reaches now levels what offer govent of n

Top Flite Strata Tour The first multilayer ball to gain significant acceptance on the PGA Tour. Titleist HP2 **Distance** A new doublecover product from the king t of metal construction and multiple layers of wound golf ball technology. By Mike Chwasky

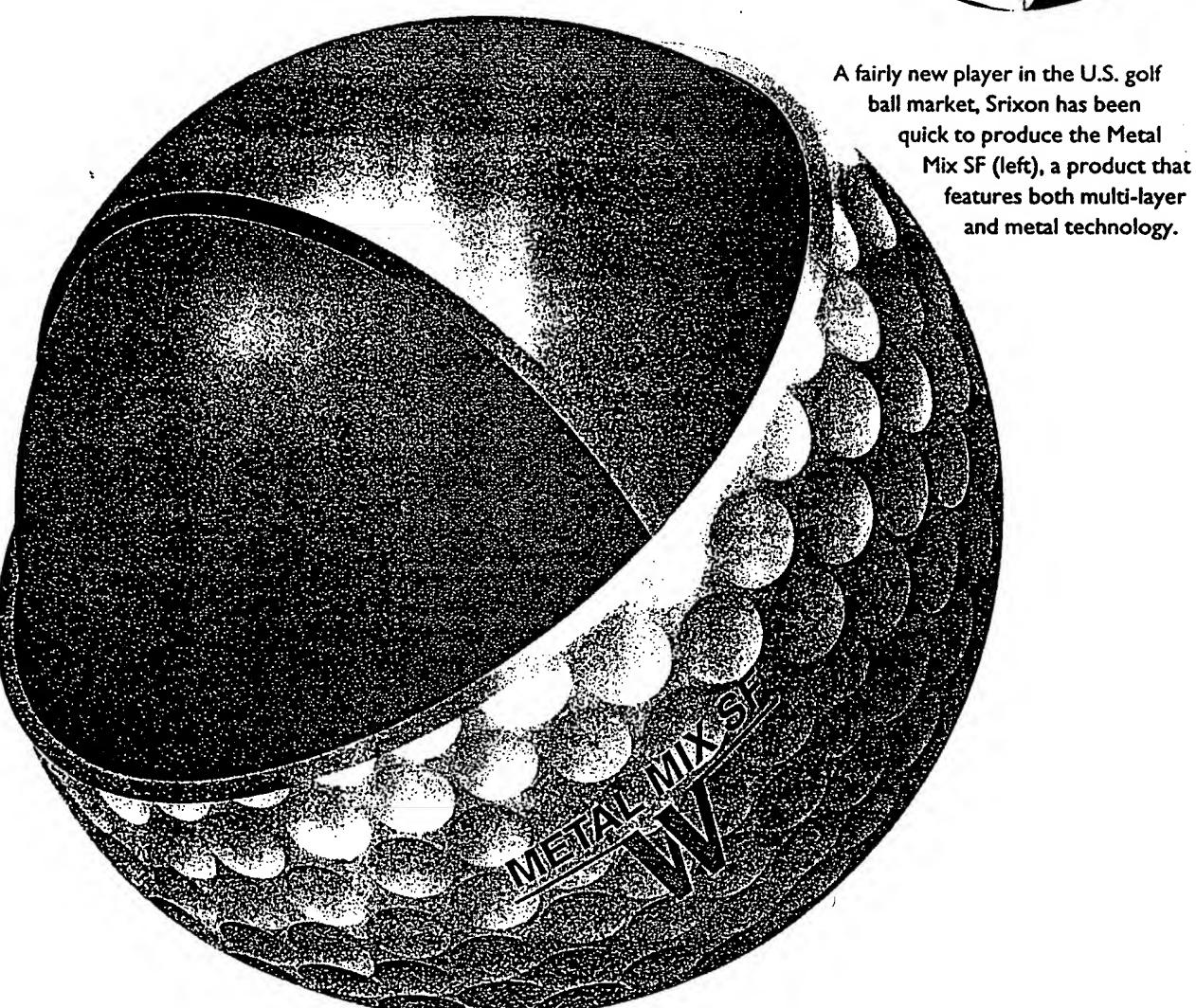
Selecting a golf ball isn't easy anymore. It seems like just a few years ago things were still fairly cut-and-dry: Pros and good players used the soft, high-spin balata variety, and everyone else used hard, surlyn models that were lost long before they wore out. It was a simple time, when optic yellow and orange were still okay, and even the occasional X-OUT wasn't a terrible thing. Things have changed though, as research and development departments around the industry have continued to develop and apply new technologies to the manufacture of today's golf balls.

The two most significant new technological developments, both of which have become quite prevalent lately, are the multi-layer (aka double cover) design and the metal core or metal cover design. For those who aren't familiar with the different methods of golf ball construction, these design fea-

tures probably sound like fairly radical departures. However, it's important to understand that they're mostly variations or improvements on traditional two- and three-piece golf ball designs. (Note: Generally, a two-piece golf ball consists of a solid core and cover, while a three-piece golf ball consists of a solid or liquid-filled core, a high-tension wound layer and a cover.)

Bridgestone
utilizes doublecover technology
in the Precept
Tour Double
Cover (right)
to help protect
the integrity
of the ball's
windings and
preserve its
roundness.



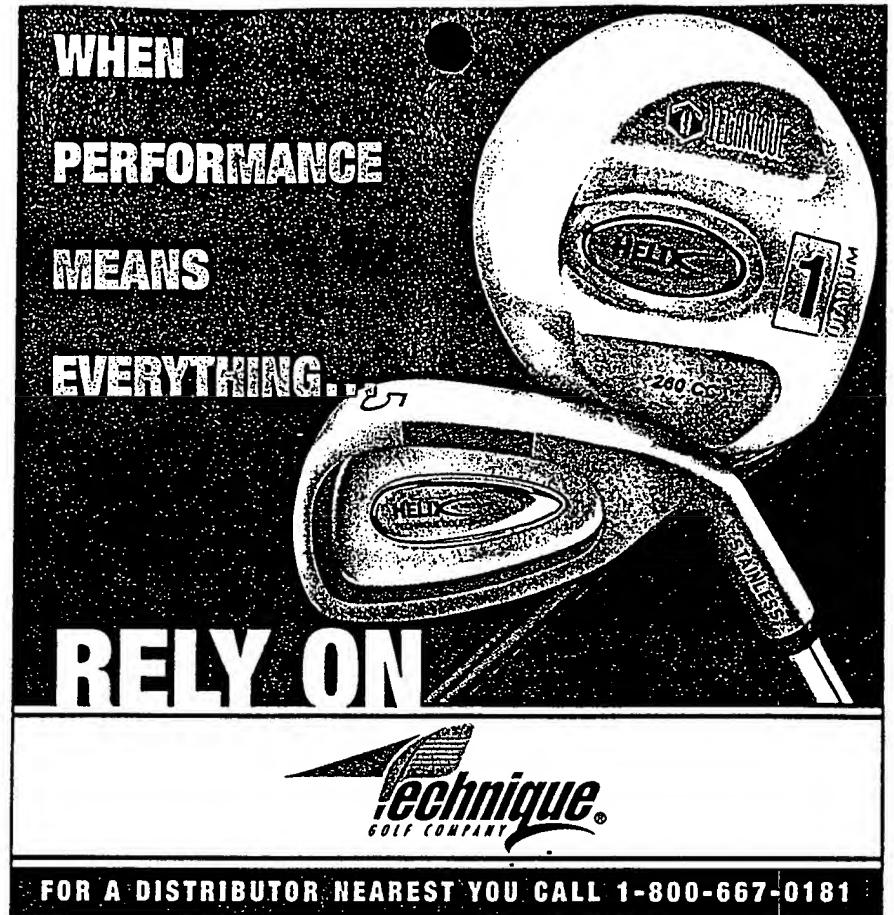


The first ball that really brought multi-layer construction to the fore was the Top-Flite Strata. Prior to the Strata's release, Top-Flite was well known as the largest manufacturer of two-piece golf balls in the world. The problem for Top-Flite, however, and other companies that had committed to two-piece technology, was that while it was fairly easy to make golf balls with good distance and durability characteristics, it was difficult to make ones that could provide the spin and feel associated with threepiece, wound models. That's not to say that there weren't some very good two-piece balls on the market, because there were, some of which were played with success on the PGA Tour. But most would agree that all in all, the wound ball still provided the best spin and feel. Accordingly, pros and good amateurs swore by them.

Then came the Strata. Featuring what Top-Flite calls "breakthrough multi-layer technology," the Strata consists of a solid core, a firm inner layer and a soft outer cover. What this construction provides, according to Top-Flite representatives, is a non-wound product that can produce the spin and feel of a wound ball, while maintaining good distance characteristics. The key elements, though, are the spin and feel because that's what solid-core, non-wound balls traditionally lacked.

A testament to the Strata's performance characteristics is the unprecedented Tour acceptance it has achieved for a non-wound golf ball. A notable example of a Tour player using the Strata is Mark O'Meara, who played it in his win at the Masters earlier this year.

In regard to the future of golf ball technology, Top-Flite vice president of research and engineering Mike Sullivan comments, "Wound golf balls won't go away for a number of reasons, but over the next five years or so you'll see a proliferation of



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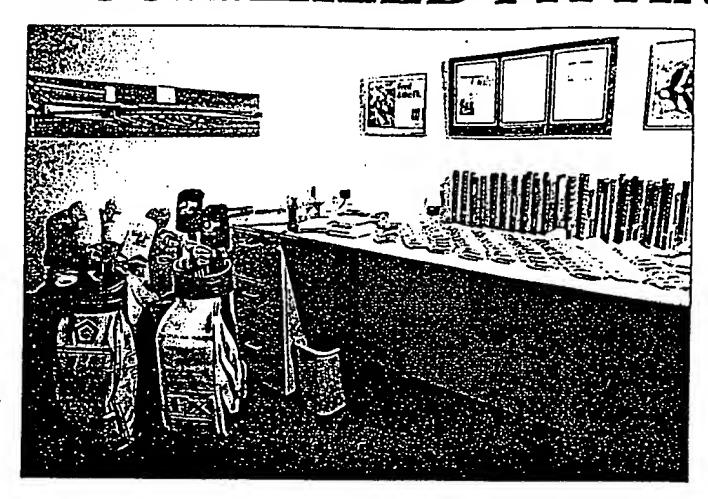
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multi-layering from a variety of golf ball manufacturers." Further evidence of this fact is Top-Flite's new Ball/Club System golf balls, which also feature multi-layer technology.

When it comes to golf ball manufacturing, no company is more well known or more closely associated with wound technology than Titleist. That's why it's so significant that the company's new HP2 Distance features double-cover technology.

But according to George Sine, vice president of research and development at Titleist, the company has employed this technology for a different reason than others have. "Our competitors have tried to replicate wound-ball performance with double-cover technology, but we have no reason to do that, for obvious reasons. We found that the best use for a double cover is to lower the spin rate of a golf ball, which in turn creates more distance. And, with a firm outer cover and a soft inner cover, we can also produce a ball that has feel."

Regarding the future of golf ball manufacturing and double-cover technology, Sine adds, "At Titleist, we're constantly seeking ways to provide discernable performance benefits to golfers. If we feel there's a technology that can help our products do that, then we'll pursue it, but we'll never introduce a new technology for marketing purposes only." Sine also comments that double-cover technology will continue to be particularly useful in the production of distance-oriented golf balls.

Bridgestone, manufacturer of Precept golf equipment, is a company that's using double-cover technology in both wound and nonwound products. According to Kelly Ellis, marketing manager at Precept Golf, the reason for this is because double-cover technology allows manufacturers to do different things with performance characteristics,

depending on the product.

"With the Precept Dynawing, a firm cover and soft inner layer over an ultra-soft core provide an excellent combination of distance and feel. That's why this technology is so useful—it allows you to combine conflicting characteristics."

The Precept Tour Double Cover also features double-cover technology, but this time in conjunction with a solid core and a wound layer. About this construction, Ellis says, "Over extended use, wound balls go out of round. That has been proven. But, in the case of the Tour Double Cover, the multiple layers protect the integrity of the windings and help the ball retain its roundness. And, because of the reinforced covers, the Tour Double Cover is longer than typical highspin, wound golf balls."

A multi-layer product that has been taking the professional Tours by storm lately is the Maxfli Revolution, which the company refers to as a "premium new construction" golf ball. The main difference in the construction of the Revolution versus other multi-layer balls is the Revolution's elastic inner layer, which Maxfli vice president of research and development John Calabria says is superior to a solid inner layer because of the enhanced feel it provides. Calabria also says the Revolution's large core and extremely resilient urethane cover

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can provide distance advantages for players with both high and moderate swing speeds.

On multi-layer technology, Maxfli director of global golf ball marketing David Longfritz comments, "The premium new construction golf ball represents what we feel is a long-term, growing segment in the market. Accordingly, you can expect to see this technology around for quite some time."

Kasco, a long-time manufacturer of multi-layer products, has taken solid-core, multi-layer technology to an extreme with the company's four-piece Rockets golf ball. According to company representatives, the Rockets consists of a hard center core for driving distance, a soft second core to absorb impact on shorter shots, a hard third core for distance on full iron shots and a durable ionomer cover, all of which are supposed to combine to produce a "unique distance ball for all golfers." Says Kasco president Mike Nokano, "Rockets are golf's answer to afterburners. We call them Rockets because of the way they literally rocket off the clubface."

Thanks largely to Wilson Golf and the company's Staff Titanium line (which features titanium in the core), multi-layer technology is joined by metal technology as the newest trend in golf ball design. According to Frank Simonutti, senior polymer chemist at Wilson, the core of the golf ball is the place where titanium is the most useful because it bonds the core materials, producing a golf ball that maintains high velocity without feeling hard.

In the company's new Staff Titanium Double Ti, however, which features a double cover, there's titanium in both the core and inner cover of the ball. Simonutti explains, "The Double Ti provides excellent distance because of the titanium core, and we tailored the titanium inner cover and surlyn outer cover to the core to balance the spin rate

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with the distance. By doing this, we think we have a ball that's getting closer to the ideal of optimum distance and optimum spin."

Another company that's using both multi-layer and metal technology in its products is Srixon, a fairly new player in the U.S. golf ball market. Aptly named, the company's Metal Mix SF model features a solid core, a perimeter-weighted tungsten mid-layer and a high-elastic ionomer cover. What this construction provides, according to company representative Sean Hanafusa, is a product with a high moment of inertia that won't necessarily spin at a higher rate, but will maintain its spin for a longer period of time.

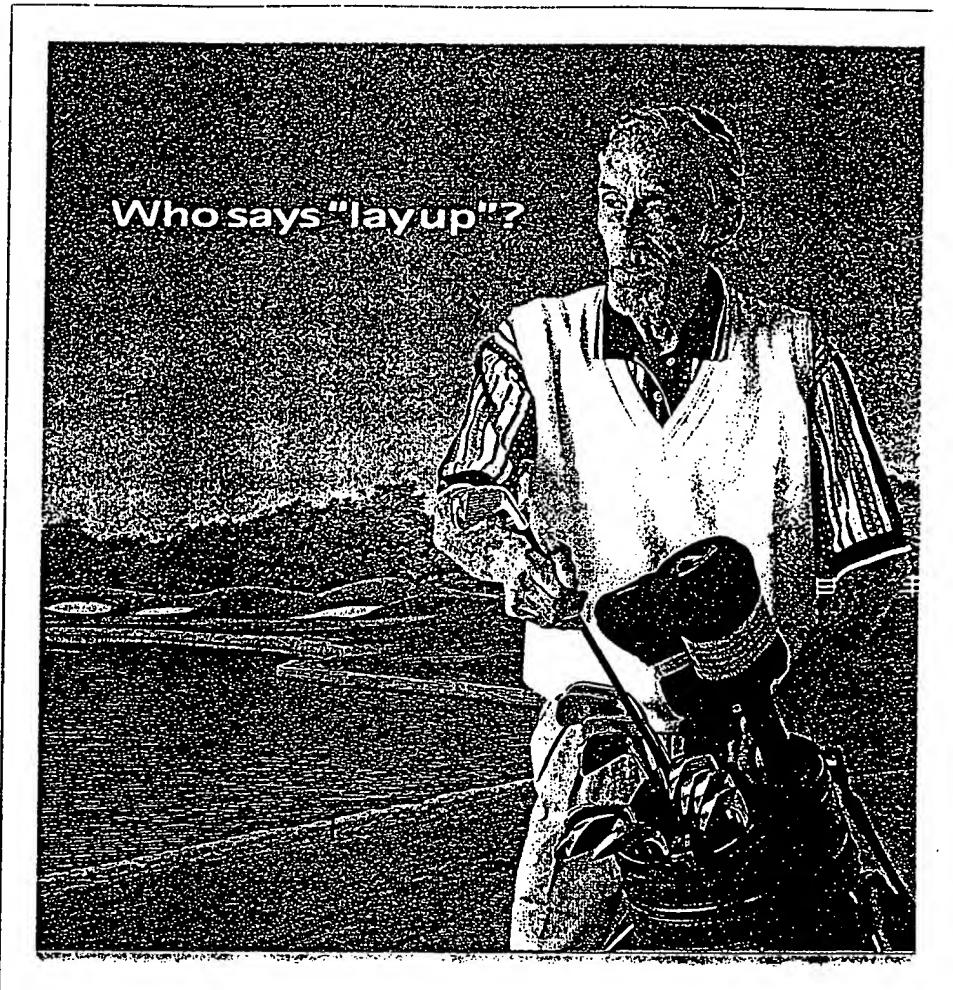
Ram Tour (aka Hansberger Precision Golf) also utilizes both multilayer and metal technology to produce products that company president Terry Pocklington says offer "both feel and response while maintaining velocity and distance." An example of this is the Ram Tour Balata DC, which is comprised of a titanium outer cover, a proprietary thermoplastic inner cover and a neodymium core.

"Neodymium creates the most resilient rubber, which produces the highest velocity and greatest distance," says Pocklington, who adds, "If you don't have initial velocity, you can't get distance. That's why metal chemistry is so valuable."

After considering all of these layers, metals and constructions, the average recreational golfer is probably left asking, "Is any of this really going to help me and, if so, how do I choose the right golf ball for me?" The answer to the first part of the question is simply, yes. Thanks to the many technological advances made by manufacturers, the quality and consistency of today's golf balls is at an all-time high.

The answer to the second part of the question is a little more complicated, but not terribly so. Basically, your goal in choosing a golf

ball should be to match its performance characteristics to the needs of your game. To accomplish this, do some research and find out which models offer the right mix of distance, durability, spin, feel and price. If you have access to the Internet, try exploring some of the manufacturers' Web sites-most have them and almost all offer some kind of custom ballfitting questionnaire. You can also resort to the oldest and most basic form of research—experimentation. Try a variety of different models until you find one that works best for you. GT



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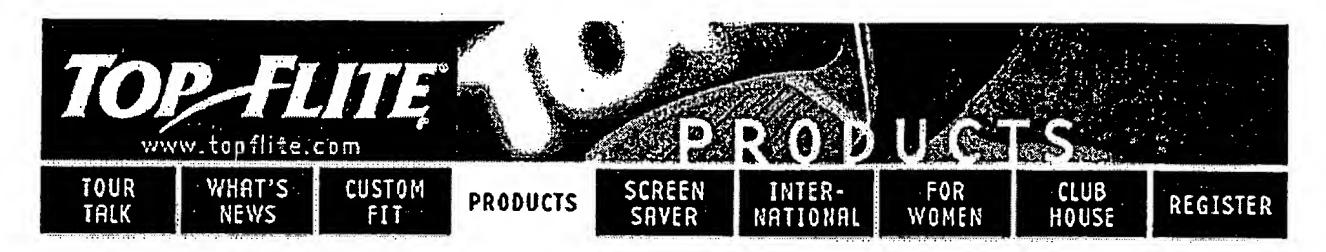
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Ex. 33

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The #1 Multi-Layer Ball On Tour.

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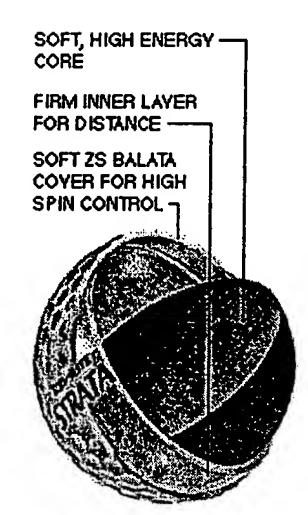
Since the turn of the century, Spalding has led the way in technology, from the first dimpled golf ball in 1909 to today's line-up of high performance balls for every level of play. In fact, over the past 5 years, no other U.S. manufacturer has obtained more patents covering materials and construction than Top-Flite.



And now, with the multi-layer technology of the Top-Flite® StrataTM Advance, the performance bar has been raised higher than ever before.

Top-Flite Strata Tour's Impressive First Year on the PGA Tour.

Dozens of professionals worldwide have already switched to the new Top-Flite Strata Tour, including former wound ball players Mark O'Meara and Jay Don Blake. And the results have been impressive. Since switching to Strata Tour, O'Meara has reached the top 5 on the PGA Tour in money, in scoring, in greens in regulation and in birdies. Strata Tour has also recorded numerous Tour victories in its first year such as: O'Meara's win at Greensboro, D.A. Weibring's GHO victory, Walt Morgan's first place honors at the SPGA Ameritech, not to mention several international wins.



Top-Flite Strata Tour. Patented Multi-Layer Construction Sets a New Standard in Golf Ball Performance.

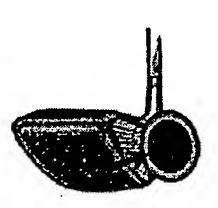
The multi-layer design of Top-Flite Strata Tour has redefined golf ball technology. By combining a super soft ZS BalataTM cover with a firm inner layer and a high-energy soft core, the new Strata Tour offers excellent distance off woods and longer irons with unequaled feel and control on short iron shots and around the green.

. ,	Distance Comparison	
DRIVER	Top-Flite Strata Tour Titlerst Tour Balata Titlerst Professiona MaxflithT	Longest -6 Yards -3 Yards -4 Yards
5 IRON	Top-Flite Strata Tour Titleist Tour Balata Titleist Professional Maxfil HT	Longest -4 Yards -4 Yards -2 Yards
	Spin Comparison	kirkelst mukaa 1946 et 2000 saat 1960 sa
30-YARD PHICH	Top-Filte-Strata-Tour Titleist Tour Balata Titleist Professional Maxili HT	Highest 200 RIPM 600 RIPM 1300 RPM

Computer-Aided Design and Breakthrough Materials Make State-Of-The-Art Performance Possible.

The Strata Tour construction is revolutionary both inside and out. Its core composition is a patented polymer that delivers a remarkable combination of softness (for feel) and maximum distance. The patented inner layer, which is the impressive power behind Strata Tour, contains an exclusive formulated ionomer material.

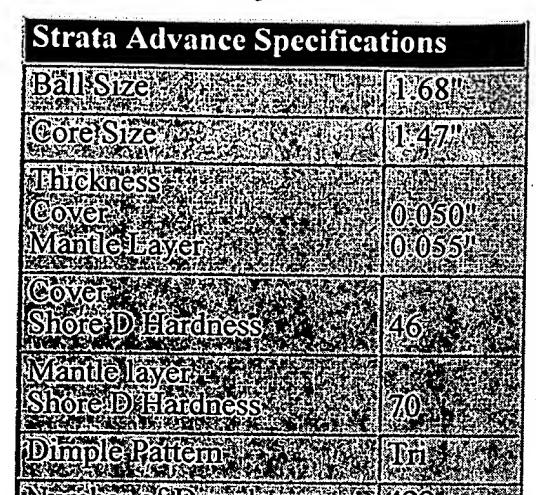
Top-Flite Strata Tour has a new ZS Balata™ outer cover that is also patented. Its advanced polymer construction makes it not only soft and resilient, but cut resistant. This translates into added confidence on those all-important scoring shots around the green. Just as important, Top-Flite Strata Tour also provides consistent, reliable performance shot after shot, and hole after hole.



With woods and long iron shots, the firm inner layer and high energy core combine to produce low spin and long distance.

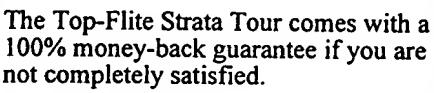


With short iron shots and around the green, the ZS BalataTM cover produces unequaled spin control with balata ball feel.



You'll See The Top-Flite Strata Tour On The Professional Tours... And At Golf Professional Shops.

The performance of Top-Flite Strata Tour continues to attract the attention of top tour players worldwide. Players like Jim Furyk and 1996 GGO winner Mark O'Meara have seen the difference Strata Tour can make in their game, and have made Strata their ball of choice for 1997.



For more information on Top-Flite Strata Tour, call 1-800-225-6601. ©1997 Spalding Sports Worldwide



You want to know more about Strata's Product Benefits and Features?

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